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ABSTRACT

An alphabetical list by state is presented of two-year colleges which offer some type of energy instruction in the form of courses, seminars, workshops, forums, information centers, and other educational resources and/or have implemented energy conservation strategies in an effort to reduce energy costs. Each of the 823 entries provide complete address information for the college, an indication of the program focus (facilities conservation, humanities, solar, environmental education, community service, and others), activity description, contact person, and reference source for the information listed. The introduction summarizes the work of the Energy Communications Center, the directory, and general information about the historical development and future projections for energy programs in two-year colleges. The appendices list, among other information, the colleges which have degree programs, certificate programs, research and demonstration projects, and information centers. (DC)

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ENERGY-RELATED ACTIVITIES IN
COMMUNITY, JUNIOR, AND TECHNICAL COLLEGES:
A DIRECTORY

AMERICAN ASSOCIATION OF COMMUNITY AND JUNIOR COLLEGES
ENERGY COMMUNICATIONS CENTER
MAY 1981

Compiled by:

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JAMES R. MAHONEY

he opinions, views, and conclusions presented in this document are solely the writer's and do not necessarily reflect those of the U.S. Department of Energy or the American Association of Community and Junior Colleges.

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Original drawings of the 50 state flowers
were contributed by Marie E. Mahoney.

Summary

There are approximately 1,230 two-year colleges in the U.S. The data in this Directory show that 823 of them (67%) offer either some form of energy instruction or have implemented energy conservation strategies in an effort to reduce energy costs. These 823 institutions offer 1,425 discrete programs.*

No sensible comparison can be made between these numbers and those reported by earlier surveys. Yet, it is apparent that two-year college involvement in energy programming has substantially increased over the last several years. The increases appear particularly in degree and certificate solar and conservation programs and in credit and non-credit renewable fuels courses. Many of these latter offerings are presented through colleges' adult and continuing education departments.

There are a number of reasons to explain this growth, but the clearest one is that the development is consistent with the philosophy and purpose of two-year colleges. Since the 1973 oil crisis, energy has been one of the most significant national issues. It has been an issue of primary concern to local citizens, underscored by the increasing percentage of their discretionary income that is taken with energy costs: gasoline, heating and cooling, and the inflated prices of goods and services attributable in large measure to burgeoning energy costs. These developments have resulted in expanded citizen interest in how energy costs can be reduced, what other energy

resources might be available and fitted to individual circumstances, and how an individual might apply, service, and maintain energy-saving or energy production techniques. The colleges have responded to this interest by providing courses, seminars, workshops, forums, information centers, and other educational resources. When manpower demands warranted it, the colleges have developed and implemented degree and certificate energy technology programs. The activity is consistent with the principal role of the colleges, that is, to provide educational opportunities tailored to the needs and interests of the local community.

Explanations for the spurt in energy-related activities at the colleges include:

- The barriers to program development identified in earlier surveys have been partially eliminated: curriculum materials are available, experienced technical advisors have been identified, manpower questions are being resolved, and skills requirements for various energy technologists are being detailed. (It is one of the purpose of this Directory to indicate where curriculum materials and technical expertise are available.)
- Approximately eight years have passed since the initial energy crisis, adequate time for colleges to work through the approval process for new programs.

* This number may be misleading, since colleges that offer credit and non-credit courses are listed singly on the one hand and colleges with energy information centers that focus on two or more energy areas are listed two or more times. Rather than fractionalize the information into multiple and confusing segments, they are offered in this form.

- An assortment of federal grants programs (including U.S. Department of Energy and U.S. Department of Education) have provided incentives for development; non-federal enterprises have also stimulated activities.

The clear indication is that energy education programs at two-year colleges will be even more important in the years ahead. The growth indicated in the most recent AACJC survey will continue.

Introduction

In August 1979 the U.S. Department of Energy (USDOE), Office of Consumer Affairs, funded AACJC to develop and administer an Energy Communications Center for two-year colleges. The project was designed to collect, analyze, and disseminate energy-related information of interest and use to local colleges as a means of (1) stimulating programs in colleges that do not offer them and (2) encouraging improvement and expansion of those programs already offered in colleges.

The production of this Directory was not included in the Center's initial tasks. Early in the first year, however, it became apparent that a significant need for such a resource existed. Telephone calls and letters to the Center office posed specific questions about what colleges were doing in energy programming, which colleges offered degree programs in solar technology or petroleum or coal mining technologies, which college experts could be contacted to help

establish a new program, what curricula materials were available, and which college a prospective student might attend to receive training in pollution control or nuclear safety. No single source in existence at that time contained answers to these questions. No separate resources focused on two-year college activities. The Center staff therefore began preparation of a comprehensive compendium of two-year college energy-related activities as a resource tool for all colleges in this country.

Procedures

The process began on December 11, 1979, when the Center staff sent information requests to the 10 regional college coordinators for the Association's Energy and the Way We Live program. On the same date, the same requests were sent to the 30 successful college applicants in the U.S. Department of Energy Alcohol Fuels Education Grants Program competition.

On January 11, 1980, the staff sent inquiry letters to all college deans of instruction asking for general information about college energy activities, including facilities conservation efforts. The staff decided against producing and sending a formal survey instrument, partly because this process would require U.S. Office of Management and Budget approval (a process that sometimes takes months) and partly because it did not want to unduly burden college administrators.

Similar letters were sent at about the same time

to state energy offices, state directors of community colleges, and regional U.S. Department of Energy offices.

Through this process the staff collected information on programs offered in several hundred colleges. The staff added to the data gathered in the initial inquiry by garnering details from an assortment of publications, including press releases, college catalogues, national and state newsletters, reports, pamphlets, newspapers, federal government announcements, reference books, magazine articles, telephone conversations, office visits, conferences, and other sources to which it had access. The major sources of information are identified in "References Key" later in this section.

The staff gave nearly a year of periodic work to these activities. In February 1981, copies of the individual record sheets (with a completed model sample sheet and an addressed stamped envelope) were sent to every institution on which the Center had information. The intention of this mailing was to verify the data the staff had collected and to gather even greater detail.

About 825 record sheets were sent in this mailing. Approximately half of them were returned with either corrections (and additions) indicated or with a note that the information was accurate. The cover letter stated that if the information was accurate, the college did not need to return the sheet. In the case of those record sheets not returned, the staff assumed that the information was accurate.

By May 15, 1981, the staff had prepared the final draft of the Directory for printing.

Historical Development

Until recently, the number of two-year post-secondary education institutions offering degree and certificate programs in this country has been relatively stable. While the surveys that have been applied to record this development suffer from incomprehensiveness, inconsistencies in definitions, and differences in purposes, they do offer a useful (while not necessarily precise) picture of growth trends in the institutions. Only sketches of these survey results are presented below. A fuller treatment is offered in "Energy Education Program Development in Two-Year Post-secondary Institutions" available through AACJC's Energy Communications Center.

The 1976 Oak Ridge Associated Universities national survey (Doggette) showed that 53 colleges offered 62 energy-related programs at that time. It reported further that 111 colleges planned new energy programs.

In the spring of 1978, AACJC (Hamilton) conducted its own national survey of two-year colleges. It identified 43 colleges with degree and/or certificate programs. It also showed that 165 institutions were offering a variety of courses, seminars, workshops, and other forms of energy-related instruction not leading to a degree or certificate.

Three other reports on two-year postsecondary energy programming, covering the same period as the AACJC report, offer additional information. The Solar Energy Research Institute's (SERI) National Solar Energy Education Directory (January 1979) showed that in the 1978-79 academic year more than 225 two-year institutions offered solar energy programs. The 1980 directory shows that 347 two-year institutions were offering solar degrees, certificates, and/or courses. The Coal Task Report on Education and Training (January 15-17, 1979) showed that 20 two-year colleges were offering 12 certificate and 21 degree coal mining programs. The study lists 4 four-year colleges and graduate institutions that offered credit, non-credit, certificate, and AAS degrees in coal mining. In Energy-Related Training Activities: Assessment of Current Offerings (Technical Education Research Corporation, January 1979), approximately 39 AA and AAS degrees are identified. Eight certificate programs are listed. More than 400 two-year colleges are listed in the report. The vast majority of these institutions provided courses, seminars, workshops, and other short-term offerings.

The examination of these surveys suggests two tentative conclusions concerning the involvement of two-year colleges in energy programming. The first is that the number of degree and certificate programs did not grow appreciably between 1975 and 1979. Some of the explanations for the stability include:

1. The traditional conservatism of higher education in regard to the development of

new technology programs for which the need has not been proven at the local or district level;

2. The uncertainty of funding sources to support such development;
3. The paucity of information about curricula designs, instructional materials, and expert consultants (and, in fact, their availability) important to support development;
4. The time required to move from the program concept stage to implementation. (One writer suggests that it takes a minimum of five years to complete this process; Brookings, 1976.);
5. The frequently shifting emphases of federal energy policies;
6. The impact of political events (oil embargoes, altered wheat agreements, on-again/off-again fuel pipelines, etc.); and
7. The dearth of information regarding current and emerging energy technologies and their skill and manpower requirements.

The second conclusion is that instead of moving into degree and certificate areas, the colleges are offering courses or sequences of courses, seminars, workshops, and public discussion opportunities for students and local citizens. Some of the offerings are presented as part of

established curricula like heating/ventilation and air conditioning.

The important increase of the less-than-degree/certificate programs is consistent with the conclusions in the report of the Energy Research and Development Administration (ERDA)-supported conference, Energy Conservation Workshop for Community College Leaders, 1976, which reads in part: "The concept of 'citizen education' as espoused by ERDA and its Office of Conservation is ideally matched to the role and scope of the community college system." (page 2)

AACJC 1980-81 Survey

A significant expansion of energy programming occurred in the colleges in the 1979-1981 academic years. The increase was measured by the national survey conducted by the Energy Communications Center to produce this Directory. The details of the development are captured in Figure I.*

If the environmental degree programs are discounted (none of the earlier surveys included a complete accounting of these programs), the record shows that colleges currently offer 111 degree programs (43% of the total) in energy areas, with the greatest emphasis falling on solar (30), coal (21), nuclear (17), and conservation (17). Of the total number of certificate programs, again discounting the environmental ones, 51 programs are offered (53% of the total) in energy areas, with the greatest emphasis falling on solar (25).

An even more remarkable explosion of program activity occurred in the less-than-degree/certificate areas. More than 1,000 of the programs identified in the survey fall into these categories.

Projections

The strong likelihood is that two-year college energy programming will continue to expand over the next several years. Most of the expansion will occur in the less-than-degree/certificate programs. A review by energy area is presented below.

- (1) Nuclear: Nuclear technology programs have decreased somewhat in the last few years, principally as a result of the Three Mile Island incident and the subsequent moratorium on nuclear plant construction imposed by the Carter Administration. The current Administration's stress on nuclear development will probably stimulate additional programs in the next few years. The role two-year colleges might play in providing technologists for a reactivated nuclear industry will likely be described in a new manpower study recently undertaken by the USDOE Office of Energy Research ("DOE" News).
- (2) Coal: Coal mining programs have remained relatively stable in the last few years, a

* The column totals in every case represent discrete programs, not colleges. Some colleges offer a variety of programs. The word "program" as it is used in this figure means any energy-related activity, including all of the various forms identified along the top horizontal axis.

FIGURE 1
***Energy-Related Programs in Two-Year Colleges and Technical Institutes**

	P R O G R A M F O R M																	
	D E G R E E	D E G R E E O P T I O N	C E R T I F	C E R T I F O P T I O N	C R E D I T C O U R S E S	C R E D I T C O U R S E	N O N C R D T C O U R S E S	N O N C R D T C O U R S E	S E M I N A R S	W O R K S H O P	I N F O	C E N T E R S	R E S E A R C H	D E V E L O P	C O N S O R T	P L A N N E D	P R O G R A M S	T O T A L S
ENERGY FOCUS																		
Coal	21		4		11					1						3		40
Petroleum	13		3				1											17
Nuclear	17	1	1			3		1	3							1		27
Alternate	7	2	7		3	30	38	11	3	12	5	11	3	9				141
Appropriate Technology						1		1	1	2	4	1		2				12
Solar	30	22	25	6	64	111	20	55	6	11	2	12	2	10				376
Alcohol	1		2		1	2	3	2	1	50		7		9				78
Audit	1		2					21	5	5				2				36
Conservation	17	1	5		11	10	32	25	18	26	13	2	18	5				183
Awareness			1			1		1	2	4			1					10
Environmental	146		45		13	11	1	1	1				1	1				220
Energy-Gen.	4	2	1		9	8	26	5	9	8	8	3	8	12				103
Faculty Devel.										29								29
Facilities Conservation								153										153
TOTALS	257	28	96	6	112	177	121	123	49	148	32	36	35	52				1425

*The totals at the bottom of each column represent discrete offerings, not discrete colleges. Some colleges, for example, offer more than one energy degree program or give several different kinds of seminars or provide multiple focuses through their information center. The 32 programs shown in the Information Centers column are offered by 23 institutions. The 35 institutions shown in the Consortium column are involved in 13 consortia.

trend that is likely to continue. Existing programs are adequate to meet future manpower needs in the industry, according to one national study (Energy Education Programs, p. 11). Oil shale mining, however, may stimulate the need for new programs in geographical areas where shale exists.

- (3) Solar: The job market for specially trained solar technicians with associate degrees appears to be regional. Manpower studies results vary widely.

Interest in residential and commercial solar applications, however, has escalated significantly in the last few years. The greatest manpower demand is for workers trained in traditional construction trades and engineering programs, with special emphasis on solar energy applications, both passive and active systems. According to the AACJC survey, 30 degree programs and 25 certificate programs in solar technology are offered. It is revealing that 22 degree and 6 certificate programs in traditional disciplines offer solar training as an option.

The stimulus for solar training in the colleges has been triggered in part by several national enterprises, including the Solar Energy Research Institute and its affiliated Centers, the League for Innovation in the Community College (Solar Installers Workshops funded by the USDOE

Office of Conservation and Solar), Navarro College, Texas (through its USDHEW-funded Solar Energy Technician program), and a number of national information dissemination activities.

The Reagan Administration's de-emphasis of solar demonstration and education projects (and the attendant budget reductions) will most likely hamper the impetus generated by these earlier efforts. But the strong indication is that the impressive solar education activities reflected in all categories in Figure I will expand in the future.

- (4) Conservation: The number of institutions offering degree and certificate programs in conservation and audit technology has increased significantly. Where almost none existed in the 1977-78 academic year (AACJC, Hamilton), 25 are currently being offered. One of the principal inducements for the increase was federal energy policies and categorical funding programs. The current Administration's policies and funding strategies may dampen further development, but the need for such technicians will continue to expand at least for the next several years.
- (5) Petroleum: Thirteen degree programs and three certificate petroleum technology programs are identified in the AACJC study. Reagan Administration support for greater domestic production of petroleum and for synfuel development may increase

the demand for technicians. Particularly in those states (Utah, Colorado, New Mexico, and Wyoming) where shale oil extraction will occur. In other states the demand for petroleum technicians is not likely to increase significantly.

- (6) Environmental: The large number of environmental degree (146--45 of them in Drinking Water or Wastewater Treatment Technology or a combination of both) and certificate (45--31 of them in Drinking Water or Wastewater Treatment Technology or a combination of both) programs was triggered by federal legislation passed in 1972. Administered by the Environmental Protection Agency (EPA), \$30 billion of public monies were awarded to thousands of communities for the construction of wastewater treatment plants.

EPA's objective was to assist 18,000 communities to build new plants or upgrade existing ones. Only a small fraction of the plants was completed, and most of these do not work efficiently. (Washington Post, 5/10-14/81)

Responding early to the promise of this program, two-year colleges began planning and introducing degree and certificate programs to meet the anticipated manpower requirements for plant operation. The federal program's lack of success discouraged the growth of the college curricula and, in fact, led some institutions to drop their offerings.

At the moment the unusual number of environmental degree and certificate programs appears to be adequate to satisfy national manpower demands. The existing number of programs, after having adjusted to the initial burst of program implementation in the mid-seventies, appears to be stable. Few new programs are likely to be needed, partly because Administration budget cuts for wastewater treatment plants and for other environmental control programs will affect this effort seriously.

- (7) Other Renewables: Except in isolated cases, degree and certificate programs in renewable energy areas seem to be unnecessary. Special focus courses or sequences of courses as part of standing, related curricula--a trend evident in Figure I--are not only reasonable, but are also likely to continue. The purpose in these less-than-degree/certificate approaches is to provide information and skills-building opportunities to already-employed craftsmen in trades related to systems installation and maintenance and to renewable fuels production, and to provide the individual homeowner and business person guidance on how these fuels might be put to good use in their own circumstances. Exceptions are those curricula that combine one or more occupational areas with energy, curricula that focus on basic, transferrable skills-building. State Fair Community

College's Ag Energy program is an example of this sort of curricula.

federal support proposed by the Administration.

- (9) Faculty Development: Nearly all of the colleges involved in faculty development activities have been supported by funds provided by the USDOE, Office of Consumer Affairs under its Faculty Development Energy Education Program. (The function is now housed in the USDOE Office of Energy Research.) The principal target group for these programs has been elementary and secondary school teachers. The Administrations de-emphasis on energy education will probably eliminate many of these programs.
- (9) Facilities Conservation: One hundred fifty-three institutions reported that they had applied (or were applying) some form of facilities conservation strategy in an effort to reduce or control institution energy expenditures. Among the strategies employed by the colleges are standard retrofitting (caulking, insulation, weatherstripping, lighting and heating reductions, and equipment maintenance), comprehensive systems management (load leveling/distribution, computer control, use of waste heat, and alternative systems applications), and administrative changes (carpool arrangements, consolidated scheduling, 4-day workweeks, and teleconferencing). The increasing percentage of institution budgets relegated to energy costs will demand that such activities be continued and, in fact, increased, in spite of the reductions in

Notes

Not all of the institutions on which the Energy Communications Center collected information are included in the Directory. Those colleges that sponsored only Energy and the Way We Live Forums programs are not included. More than 450 colleges were involved in this program. These colleges are not recorded in Figure I. Also, institutions reporting only facilities conservation efforts but without giving useful detail were not included on individual record sheets. These colleges were counted in Figure I.

While the Center staff attempted to produce a comprehensive resource text, we are confident that we fell short of the goal. We think there are a good many additional activities at the colleges that we have not captured here. And we are sure that at least some of the entries we have included are not accurate. We will attempt, however, to complete the record and correct inaccuracies by continually updating the Directory so that local institutions will have as current and complete information on these programs as is possible.

To make the most effective use of the Directory, the person receiving it at each college will need to add some touches; for example, side tabs to identify the various state entries should be added. Appendices might be color-coded to facilitate quick reference. The printing and

distribution costs for such a large document prohibited the staff from including these "amenities."

Only 1,500 copies of the Directory were printed. In most cases, a single free copy was sent to each two-year college president with a cover letter asking that it be forwarded to the person in the college who could make best use of it. Some individual copies were shared with non-college organizations that will also make good use of it. Colleges that have special needs for additional copies have also been sent additional copies.

James R. Mahoney
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Energy Communications Center

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References Key

In an effort to prepare a comprehensive directory (and to credit individual colleges for their initiatives), a wide assortment of secondary resources was tapped. The key below identifies the major sources noted in the "References" column of the individual record sheets.

AED	Academy for Educational Development, <u>Energy Conservation Idea Handbook</u> , 1414 22nd Street, N.W., Washington, D.C. 20037; 1980.
AFS Survey	Alcohol Fuels Seminar survey; survey of college participants in the three Alcohol Fuels Seminars (September 1980-February 1981) co-sponsored by AACJC and the National Gasohol Commission through a grant from the U.S. Department of Energy, Office of Alcohol Fuels; 1980.
Cal Guide	<u>A Guide to Energy-Related Curriculum at California Community Colleges and Certain Other Programs</u> , Monterey Peninsula College, Monterey, California 93940, with support from the California State Department of Education; 1980.
College Catalogue	Details taken from published college catalogues.
Doggette Study	<u>Energy-Related Technology Programs in Community and Junior Colleges</u> , Oak Ridge Associated Universities, Manpower Development Division, P.O. Box 117, Oak Ridge, Tennessee 37830; John R. Doggette; 1976.
EEP	<u>Energy Educational Programs</u> , League for Innovation in the Community College, 1100 Glendon Avenue, Suite 925, Los Angeles, California; 1978.
EMS	<u>Energy Management Systems</u> , League for Innovation in the Community College; descriptions of member colleges' energy conservation programs; 1978.
EPCG	<u>Environmental Protection Careers Guidebook</u> , U.S. Department of Labor, Employment and Training Administration, and U.S. Environmental Protection Agency; 1981.

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ERTA-TERC	<u>Energy-Related Training Activities</u> ; Technical Education Research Center - Southwest, 4201 Lake Shore Drive, Suite 111, Waco, Texas 76710; graphic display of two-year postsecondary energy education programs; 1979.
EWLF Material	<u>Energy and The Way We Live Forums</u> materials; project conducted by AACJC (1977-80) with funding from the U.S. Department of Energy, the National Endowment for the Humanities, Charles Stewart Mott Foundation, and other contributors.
Hamilton Study	<u>A Survey of Energy Programs in Two-Year Colleges and Technical Institutes</u> , report of an 1978 AACJC survey of energy education programs in community, junior, and technical colleges in the U.S.; Bette E. Hamilton; 1979.
MACJC	<u>Newsletter of the Missouri Association of Community and Junior Colleges</u> , Maple Woods Community College, 2601 N.E. Barry Road, Kansas City, Missouri 64156.
NORD Survey	Information gathered through the National Council for Resource Development energy project; 1980. See Bibliography.
NSEED'80	<u>National Solar Energy Education Directory</u> ; Solar Energy Research Institute, 1617 Cole Boulevard, Golden, Colorado 80401; identifies solar energy educational activities in colleges and universities in the U.S.; 1980.
Oak Ridge Report	<u>Exploring A Career in Coal Mining</u> , Oak Ridge Associated Universities, Manpower Education, Research and Training Division, P.O. Box 117, Oak Ridge, Tennessee 37830; with funding from the U.S. Department of Energy; 1980.
PE	<u>Profiles in Energy</u> , National Council for Resource Development, One Dupont Circle, N.W., Suite 410, Washington, D.C. 20036; brief descriptions of 20 specifically funded energy education programs in two-year colleges; 1980.
PSIP	<u>Private Sector Initiative Program Clearinghouse Showcase</u> , National Alliance of Business, 1015 15th Street, N.W., Washington, D.C. 20005; 1980.

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Appropriate
Technology Community Colleges and Appropriate Technology, AACJC report of a roundtable discussion designed to identify the appropriate role(s) of two-year colleges in appropriate technology; supported by the National Science Foundation; 1979.
- SE Studies in Energy (A Nebraska College Guide), Nebraska Energy Office, Box 95085, Lincoln, Nebraska 68509; Larry Schamann; 1981.
- Short Report A Study to Determine the Manpower and Training Needs of the Coal Mining Industry, U.S. Department of the Interior, Bureau of Mines, Salt Lake City, Utah 84107; John Short & Associates; 1979.
- SOLNET Solar energy newsletter of the League for Innovation in the Community College; Robert Leo; 1980.
- SUEDE Solar Energy Utilization, Economic Development and Employment in Low Income Communities, project description, funded by U.S. Department of Energy, Office of Solar Applications, Conservation and Solar Energy, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585; 1979.
- Survey Response In December 1979, AACJC's Energy Communications Center sent information requests to all two-year colleges, state departments of energy and education, regional energy offices, and other institutions/organizations/ offices in an effort to gather details.
- USDOE
Announcements • For faculty development programs: Directory of Faculty Development Projects in Energy Education -- 1980, U.S. Department of Energy, Office of Consumer Affairs, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585; 1980. Information from the 1981 announcement also included.

References Key (continued)

- For alcohol fuels: Alcohol Fuels Training Grants Program, U.S. Department of Energy, Office of Alcohol Fuels, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585; 1980.

Wingspread Report

Wingspread Conference on Energy Education, sponsored by the University of Wisconsin-Extension, Wisconsin Department of Public Instruction, Wisconsin Board of Vocational, Technical and Adult Education, Wisconsin Division of Energy, with Johnson Foundation; Wingspread Conference Center, Racine, Wisconsin 53401; 1979.



ALABAMA

Camellia

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Alexander City State Junior College P.O. Box 699 Alexander City, AL 35010 205/234-6346	Conservation Humanities	● In-house conservation efforts in progress. ● Participant in Energy and The Way We Live Forums.	Dr. W. Byron Causey, President T. Herbert Taylor	● 1/80 Survey Response ● EWLF material ● Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Atmore State Technical Inst. P.O. Box 737 Atmore, AL 36502 205/368-8118	Facilities Conservation	Formal energy audit resulted in some of following recommendations: install wall insulation in Auto Mechanics building; install storm windows (for both heating and cooling seasons) in buildings; disconnect 12 heaters; turn down thermostats in Auto Mechanics building; and install locking thermostat covers.	Curtis Fayard, Energy Coordinator	1/80 Survey Response from state education office and letter, 5/21/80

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Brewer State Junior College Highway 43, North Fayette, AL 35555 205/932-3221	Facilities Conservation	College undertook a comprehensive energy audit, installed automatic timers on all thermostats and outside lights, set all thermostats in compliance with federal guidelines, and carefully matched heating and cooling unit output to actual demands in specific areas at specific times. College is seeking federal assistance to implement more costly recommendations included in energy audit report.	Gary Branch Roger J. Handley, Director, Federal Programs	1/80 Survey Response from state education office and letter, 5/16/80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Carver State Technical College 414 Stanton Street Mobile, AL 36617 205/473-8692	Facilities Conservation Solar	• In-house conservation efforts in progress. • College offers a Certificate program in Plumbing and Pipefitting-Solar Specialization, offered through the Plumbing and Pipefitting department, with focus on solar energy education; residential, industrial, commercial solar system installation; instrumentation, control, design, maintenance; and plumbing and electricity-solar specialization. • Solar Technology Industrial Operator, 144-contact hour course offered through the Plumbing and Pipefitting department, with focus on energy storage systems, heat and energy transfer, materials, domestic hot water, solar heating, systems design, and systems installation/maintenance.	Earl Roberson, President John W. Lortie, ext. 22 John W. Lortie	• 1/80 Survey Response • NSEED '80 • NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Chattahoochee Valley Community College 2602 Savage Drive Phoenix City, AL 36867 205/297-4981	Facilities Conservation Humanities	● In-house conservation efforts in progress. ● Participant in Energy and The Way We Live Forums; offered for credit.	Dr. James E. Owen Ellen Gunter	● 1/80 Survey Response ● EWLF material ● Verified 4/17/81

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Drake State Technical College 23421 Meridian St. North Huntsville, AL 35811 205/539-8161	Facilities Conservation	• In-house conservation efforts in progress, including compliance with federal government building temperature guidelines, prohibition of electric space heaters, careful monitoring of energy use, and application of energy audit of college buildings.	S.C. O'Neal	• 1/80 Survey Response and 5/22/80 Letter

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Enterprise State Junior College U.S. Hwy. 84E P.O. Box 1300 Enterprise, AL 36331 205/347-2623	Facilities Conservation	● College has applied in-house energy conservation measures.	Benjamin A. Forrester President	● 1/80 Survey Response
	Humanities	● Participant in Energy and The Way We Live Forums.	Mary Bauer, 205/347-5431	● EWLF material
	Energy General	● College is planning short courses and degree program in conservation, solar and nuclear (nuclear power plant within 30 miles)	J.D. Talmadge, Dean 205/347-9811	● 1979 Hamilton Survey ● Verified 3/30/81

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Gadsden State Junior College George Wallace Dr. East Gadsden, AL 35903 205/546-0484	Facilities Conservation	Established an Energy Conservation Committee responsible for sensitizing faculty and students about energy issues; following future Emergency Building Temperature Restrictions Plan; instituted preventive maintenance and equipment monitoring plan; and reduced lighting to a minimum.	Dr. Arthur W. Dennis President	1/80 Survey Response from State Education Office and 5/28 letter
	Humanities	Participant in Energy and The Way We Live Forums.	James W. Akers	EWLF material
	Environ- mental Education	College offers degree program in Pesticides and Toxicology.		EPCG

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George Corley Wallace State Community College P.O. Drawer #1049 Selma, AL 36701 205/875-2634	Facilities Conservation	● In-house conservation efforts include: - reduction in interior and exterior lighting through time control devices - thermostat setting in compliance with federal guidelines - install connecting corridors between buildings	Charles L. Byrd President	● 1/80 Survey Response ● 2/80 Response Letter

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Jefferson Davis State Junior College Alco Drive Brewton, AL 36426 205/867-4832	Facilities Conservation Humanities	• In-house conservation efforts in progress. • Participant in Energy and The Way We Live Forums.	George R. McCormick, President Joseph B. Weaver	• 1/80 Survey Response • EWLF material

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Jefferson State Junior College 2601 Carson Road Birmingham, AL 35215 205/853-1200	Facilities Conservation	In-house conservation efforts in progress including adherence to federal guidelines and strategies to encourage faculty/staff to conserve energy.	Judy M. Merritt	1/80 Survey Response
	Humanities	Participant in Energy and The Way We Live Forums.	L.M. Sims, ext. 210	EWLF material
	Environ- mental Education	College offers Environmental Studies degree program.		FPCG

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John C. Calhoun State Community College P.O. Box 2216 Decatur, AL 35602 205/353-3102	Energy General	● Provides career planning information in multifaceted energy subjects to interested students via computer data and energy career handbooks.	Pat Swinford, ext. 315	● Verified 4/13/81
	Environ- mental Education	● Revised General Science Environmental Studies credit course to include energy conservation and other energy considerations.	George Williams, ext. 325	
	Solar	● Installed active solar panels, controls and pre-heat tanks in shop and included active solar in course of study, through HVAC program. ● Revision in process to add passive solar design in the competency-based course of instruction in Technical Drafting.	Thomas Snipes, ext. 271 Harold Lott, ext. 273	
	Facilities Conservation	● College has completed facilities audit through consultant and TVA and is in process of implementing numerous conservation measures: timers for HVAC, energy efficient lighting, insulation, weatherization, double foyers, building day and night conservation coordinators. Detailed solar analysis is in process.	Dr. Carl Witty, ext. 215	
	Alternate	● Through Continuing Education/Community Services, established energy courses on active solar/passive solar, self-sufficiency seminars including organic gardening, solar greenhouses and sun spaces, home conservation practices, wind-power generation, synfuels and wood-burning.	Jeanne Jacobs, ext. 207	

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John C. Calhoun State Community College Decatur, AL 35602	Community Service	Developing plans in consumer education to initiate contact with numerous local organizations in program development for many varied programs to include energy.	Betty Hutchins. ext. 319	
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lawson State Community College Birmingham, AL 35221 205/925-1666	Faculty Development	College is grantee under the 1980 USDOE Faculty Development Education Program; Summer Workshop on Energy Conservation for High School Teachers, 3-week workshop provided 35 teachers with a survey of energy resources, and discussion on conservation in industry and residential buildings, solar energy applications and associated technology, and strategies for high school curriculum development.	W.F. Jackson	USDOE Announcement

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Lurleen B. Wallace State Junior College P.O. Drawer 1418 Andalusia, AL 36420 205/222-6591	Facilities Conservation Humanities	● In-house conservation efforts in progress. ● Participant in Energy and The Way We Live Forums.	Dr. William H. McWhorter James C. Gamer	● 1/80 Survey Response ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Muscle Shoals State Technical College P.O. Box 2545 Muscle Shoals, AL 35660 205/381-2813	Facilities Conservation Solar	● In-house conservation efforts in progress. TVA has conducted a recent energy audit and made recommendations concerning electrical power consumption. ● Plans are underway to establish a solar unit in the Refrigeration/Air Conditioning program.	Hugo Barton, President	● 1/80 Survey Response ● Verified 3/30/81

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Patrick Henry State Junior College P.O. Box 646 Monroeville, AL 36460 205/575-3156	Facilities Conservation	College has conducted facilities audit through engineering consultant firm and, as a result, has: placed air conditioning units and heat on time clocks: reduced temperature of water to 105°; turned thermostats to 78° in summer and 65° in winter; and reduced lighting. College has organized energy conservation committee.	James R. Allen President	1/80 Survey Response - Verified 3/30/81

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Snead State Junior College P.O. Drawer D Boaz, AL 35957 205/593-5120	Facilities Conservation Humanities	● College has initiated in-house conservation efforts. ● Participant in Energy and The Way We Live Forums.	Dr. W.H. Osborn, President Tom Baggett, ext. 205	● 1/80 Survey Response ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southern Union State Junior College Wadley, AL 36276 205/395-2211	Facilities Conservation Environ- mental Education	● College has initiated in-house conservation efforts. ● College offers degree program in Environmental Studies.	Dr. L. Ray Jones, President	● 1/80 Response Letter ● EPCG

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Wallace State Community College Napier Field Dothan, AL 36301 205/983-3531	Facilities Conservation	● College has initiated in-house conservation efforts.	Dr. Phillip J. Hamm, President	● 1/80 Survey Response from State Education Office

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Walker State Technical College P.O. Drawer L Sumiton, AL 35148 205/648-3271	Facilities Conservation	● College has initiated conservation efforts.	Harold Wade, Director	● 1/80 Survey Response from State Energy Office
	Conservation	● College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.		● CORD Material
	Coal	● College offers Underground Coal Mining Industry Diploma Program. Also provides training for all mandatory requirements for surface and underground mining, and provides blasters training for the surface mining industry.	Harold Wade, Director	● Verified 3/30/81



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Anchorage Community College Anchorage, AK 99504 907/279-6602	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit. ● Topics on Solar and Wind Power, 1-credit course offered through Natural Science, Mathematics department; topics include solar components, introduction to solar energy, passive solar systems, solar energy policy development, solar marketing/economic analysis, and wind energy conversion systems.	Barbara Zickuhr James L. Wise 907/279-4523	● EWLF material ● NSEED '80

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Kenai Peninsula Community College Box 848 Soldotna, AK 99669 907/262-5801	Energy General	● AAS degree in Applied Energy Technology, includes solar, wind, geothermal, and nuclear; 14 core courses. ● AAS degree program in Energy Resource Technology proposed for 1981 fall. ● Energy options offered in AAS degree programs Industrial Electronics and Industrial Process Instrumentation. ● College offers credit course Introduction to Energy.	John G. Wilsey, President	● 1979 Hamilton Report
	Coal	● AAS degree in Coal Mining Technology and a certificate program; 11 core courses.	Margo Zuelow, Dean of Instruction	● 7/25/80 Telephone Survey
	Petroleum	● AAS degree in Petroleum Technology, and a certificate program; 23 core courses.	Dennis Steffy, Chairman, Division of Applied Sciences	
	Humanities	● Participant in Energy and The Way We Live Forums.	Margo Zuelow	● EWLF material
	Solar	● Alternative Sources, 3-credit course offered through the Applied Science department, with focus on alternate energy sources, appropriate technology, bioconversion, energy storage systems, solar systems design, testing/evaluation, and wind energy conversion systems.	D. Steffy	● NSEED'80

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Northwest Community College Pouch 400 Nome, AK 99762 907/443-2201	Solar	● Energy Workshop, 15-contact hour course offered through the Arts and Science department, with focus on alternate energy sources, introduction to solar energy, and wind energy conversion systems. ● Environmental Society, 3-credit course offered through the Arts and Science department, with focus on alternate energy sources, introduction to solar energy, and wind energy conversion systems. ● Passive Solar Energy Seminar; a non-credit 7-hour contact workshop, with focus on solar energy technology as it relates to the Norton Sound region.	Nancy McGuire	● NSEED'80 ● Verified 4/27/81
	Alternate	● Alternative Energy Workshop, a two-evening, 6-hour contact workshop designed to give the participant a broad background in renewable energy ● Heating with Wood; a non-credit, 7-hour contact workshop to help familiarize participants with wood heating equipment and procedures.	Lisa Stone Lisa Stone	
	Conservation	● "The Arctic House," a 7-contact hour seminar on insulation, construction in the arctic.	Lisa Stone	

ARIZONA



Blossom of the Saguaro Cactus

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Arizona College Woodruff at Overfield Road Coolidge, AZ 85228 602/723-4141	Humanities Solar	• Participant in Energy and The Way We Live Forums; offered for credit. • Solar Heating, 3-credit course offered through the Building Trades Technology program; Aravaipa Campus, Winkelman, AZ 85292. • College administered a grant (Arizona Solar Energy Research Commission) involving the construction of banks of solar collectors to heat an olympic-sized swimming pool. Activities included: evaluation of solar pool heating materials for mechanical and chemical stability, study of solar degradation, and installation and handling of materials. • Solar Heating: 3-credit course with focus on theory, design, and construction of solar heating devices.	Michael Toler Glen F. Johnson 602/356-7864, ext. 51 Dale Gibson 602/836-8243 John Palmer 602/836-8243	• 2/80 Survey Response • NSEED'80 • NCRD, PE • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cochise College Douglas, AZ 85607 602/364-7943	Conservation Solar	● College offers conservation courses. ● Solar Energy Systems, 3-credit course offered through the Technology department, with focus on alternative energy sources, conservation, energy storage systems, heat and energy transfer, and introduction to solar energy, 2 hours lecture per week and 5 hours lab per week.	Bob Elkins 602/458-7110 Henry R. Elhurro	● 1/79 ERTA, TERC ● NSEED '80 ● Verified 4/8/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Glendale Community College 6000 W. Olive Ave. Glendale, AZ 85301 602/934-2211	Energy General Solar	● College offers courses/workshops in energy awareness, conservation, management, and heat pumps. ● Build-It-Yourself Solar Water Heating, 8-contact hour course offered through the Continuing Education department, with focus on appropriate technology, conservation energy storage systems, heat and energy transfer, solar law/legislation, and solar systems installation/maintenance. ● Solar Energy: A Consumer Guide, 26-contact hour course offered through the Continuing Education department, with focus on alternate energy sources, bioconversion, centralized solar power systems, energy storage systems, solar energy policy development, solar home construction, and solar marketing/economic analysis.	Robert R. Waltrip, President Pittenger, Marinello 602/966-5488 Stutzman, Yamamoto	● 1/79 ERTA, TERC ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Maricopa Community College District 3910 E. Washington Street Phoenix, AZ 85034 602/244-8355	Facilities Conservation	● In November '71 the staff presented the local Governing Board with a proposal to automate the H.V.A.C. controls on four campuses. Permission was given and in 1972 four of the colleges were placed on computerized operations. ● A 1978 feasibility study led to approval of a \$1 million expansion of the automation system. Savings are expected to exceed \$300,000 per year. Payoff of expenditure anticipated in 3 years. Energy savings are expected to be 15% over present energy use. ● Operating equipment is in classroom building centrally located. Expectations are that Refrigeration, Solar, and energy-related education programs will use the equipment for hands-on experience.	Paul M. Polen, Facilities Maintenance and Operations Manager Marlone L. Sperstad, Director, Industrial Education Center 602/275-8500	● 2/80 Response Letter

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Maricopa Technical Community College Maricopa City Community College District 108 North 40th St. Phoenix, AZ 85034 602/275-8500	Solar	• Solar Technology, certificate program offered through the Industrial Technology/Refrigeration department, with focus on heating/ventilation/air conditioning-solar specialization, solar system installation-residential/commercial/industrial, solar technology-instrumentation/controls design/maintenance, and do-it-yourself home installation. Courses include: - Introduction to Solar Energy, 3-credit - Solar Systems Installation Procedures, 4-credit - Solar Technician Troubleshooting and Evaluation, 4-credit • Arizona Solar Energy Commission is funding college to refurbish an historic home which has a "day and night" solar water heater; the system was installed with the original construction in 1917; collectors will be left in tact but the passive thermosiphon system will be converted to a closed-loop active system.	Keith E. Carrico, Ext. 445 Norbert I. Bruemmer, President	• NSEED'80 • 11/80 SOLNET • SOLNET, July 1980

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mountain States Tech. Institute 66 16 W. State Ave. Glendale, AZ 85301 602/247-6512	Solar	• Air Conditioning, Refrigeration, Heating, Solar Energy, and Sheet Metal certificate program offered; 60-contact hour program.	Daniel Hamill	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northland Pioneer College Holbrook, AZ 86025 602/524-6111	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Marvin L. Vasher, President Frank Plucker 602/298-5082	● EWLF material
	Solar	● Solar and Alternate Energy Sources, 3-credit course offered through the Physics department, with focus on conservation, energy storage systems, introduction to solar energy, passive solar systems, solar domestic hot water, and distributed solar systems. ● College has offered a Solar Collector construction workshop.		● NSEED'80
	Greenhouse Facilities	● College is offering Solar Greenhouse construction class. ● College is organizing an institutional energy committee as a first step in reducing college energy usage.		● 2/80 Response Letter

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Phoenix College 1202 W. Thomas Road Phoenix, AZ 85013 602/264-2492	Humanities	● Participant in Energy and The Way We Live Forums.	Wilfred Waldron, ext. 309	● EWLF material
	Solar	● Introduction to Solar Energy Systems 3-credit course, with focus on basic approach and overview of passive and semi-active solar energy systems, design, and application to current residential and small business use.	Ralph Norton, ext. 305	● EEP, 1/80
	Faculty Development	● College is grantee in 1981 USDOE Faculty Development Program; 14-day institute for high school science teachers with focus on energy alternatives. ● College was also grantee in USDOE 1980 Faculty Development Program.	Gerald F. Judd, ext. 481 William E. Berry, President	● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Pima Community College West Campus 2202 West Anklam Road Tucson, AZ 85709 602/884-6666	Facilities Conservation Solar	● College operates a 4-day work week in summer, and actively encourages car-pooling. ● Solar and Energy Technology, through Continuing Education, designed to allow students with modest math skills and no construction background to analyze home energy consumption, recommend alterations to improve energy usage, and establish the cost effectiveness of recommended alterations. ● Two-day, non-credit course, Community Solar Workshop, offered in cooperation with the College of Engineering, University of Arizona, for homeowners interested in converting domestic hot water systems to solar power; workshops are held monthly; participants purchase a hardware kit for two collectors and assemble during workshop.	Ray J. Stith Constance Howard, Dean, Community Services	● 3/80 Response Letter ● 7/1/80 Letter ● Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rio Salado Community College 102 N. 40th Street Phoenix, AZ 85034 602/275-7881	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Introduction to Solar Energy, 3-credit course, with focus on solar heating and cooling, domestic solar hot water, collector systems, heat storage systems, and materials.	Francine Hardaway Armando Gonzalez Assoc. Dean of Instruction	● EWLf material ● 1/80 EEP ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Scottsdale Community College 900 East Chaparral Road Scottsdale, AZ 85253 602/941-0999	Solar	● Introduction to Solar Energy Systems, 3-credit course offered through the Technology department, with focus on basic approach to and overview of passive and semi-active solar energy systems design and application to current residential and small business structures.	John Messer, Assoc. Dean of Occupational Education	● EEP 1/80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Yavapai College Prescott, AZ 86301 602/445-7300	Conservation Solar	● Insulation, Energy Conservation, 1-credit course. ● Solar Energy Technology, AAS degree program offered through the Science and Industrial Technology department. Speciality courses include: - Here Comes the Sun, 1-credit - Methane, Wind-Electricity, Wood-Alternate Energy, 1-credit - Solar Cookers, 1-credit - Solar Greenhouse, 1-credit - Solar Heating, Air and Water Systems, 1-credit - Solar Heating, Passive and Hybrid Systems, 1-credit - Solar Heating, Retrofit Systems, 1-credit - Solar Hot Water, 1-credit - Solar Laboratory, sequence of five 1-credit courses - Solar Technology I-IV, 3-credits each - Adobe Construction I-II, 1-credit each	L. Minkler L. Strom R. Takacs	● 1/79 ERTA, TERC ● NSEED'80 ● Verified 4/6/81



Apple Blossom

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
East Arkansas Community College P.O. Box 4000 Forrest City, AR 72335 501/633-4480	Alcohol	College offered Alcohol Fuel Production Workshop, 2/19-20/80; program included: economic overview, alcohol production process, history & regulations, feedstocks and by-products, plant design and layout/safety/process control, and engine conversion.	Dr. John Alderson, Dean of Academic Affairs	1/80 Response Letter

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Mississippi County Community College P.O. Drawer 1109 Blytheville, AR 72315 501/762-1020	Solar	- College offers AAS degree program in Solar Energy Technology, through the Applied Science department; stress in the program is on photovoltaics because the college serves as a national demonstration and research site for photovoltaic heating and cooling of buildings. Construction and research activities are supported in part by the USDOE. Five year intensive study is being conducted of all aspects of the Total Solar Photovolatic Energy System, including cost payoff, environmental impact, maximum power under various conditions, control scenarios, alternate energy options, etc. Curriculum courses include: - Electronics, Instrumentation, and Electrical Storage - Heating and Air Conditioning Fundamentals - Solar Technology I, II, III - Solar Technology Laboratory I, II, III - Survey of Energy Sources - Solar Technology Cooperative Education - Thermal Systems - Problems in Solar Design	Harry Smith, President Christopher M. Benson Ext. 74	12/79 Survey Response; Hamilton Report; NSEED'80
	Alcohol	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.		USDOE Announce-ment

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Mississippi County Community College Blytheville, AR 72315	Energy Technology Energy General	● Community tours and community awareness seminars offered on the college's Total Solar Photovoltaic Energy System. ● In 1980, hosted Mid-South Energy Exposition, a yearly energy exposition featuring all phases of energy resources.	C.M. Benson, ext. 191	● Verified 3/30/81
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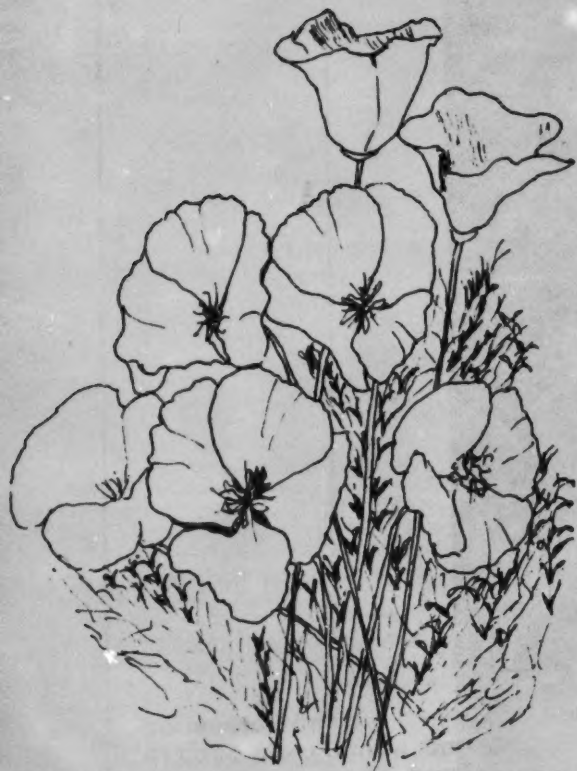
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Arkansas Community College Pioneer Ridge Harrison, AR 72601 501/743-3000	Alternate Appropriate Technology Information Center	● College offers two-semester credit courses: Alternate Energy Technology with focus on current and future resources, environmental impacts, and alternate energies including wood, wind, water, color, methane, and alcohol. ● Exploring possibility of expanding other offerings into a degree program. ● With a two-year USDOE grant the college is establishing an Appropriate Technology Center. The Center will be powered with solar (photovoltaic) electricity. The Center will offer local residents access to a self-directed learning facility; consultation, workshops, and formal classroom instruction; equipment for examination and instruction; and a variety of out-reach activities. Once the Center is established, staff will create its own energy information program. Unique features of the energy information center include: 1. Slide/cassette programs on all energy related topics of interest to homeowners are available (eventually 90 such programs will be available - currently 32 are on hand). These are loaned to schools & community groups as well. 2. A small microcomputer is used for educational purposes and for people's more detailed calucation	Stephen P. Cook, Energy Instructor	● 2/80 Response Letter

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North Arkansas Community College Pioneer Ridge Harrison, AR 72601 501/743-3000	Humanities	needs. 3. Equipment to serve energy needs of area residents is loaned. • Participant in Energy and The Way We Live Forums.	Guy Ames	• EWLF material • Verified 4/2/81
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Phillips County Community College P.O. Box 785 Helena, AR 72342 501/338-6474	Facilities Conservation	● College conservation strategies have included: - installation of insulation in six buildings - purchase and installation of a computer controlled, central energy management conservation system, connected to lighting, air conditioning, and heating equipment. Program was supported by a USDOE grant.	Jerald Barber, Chief Fiscal Officer	● NCRD, PE

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Westark Community College Grand at Waldron P.O. Box 3649 Fort Smith, AR 72913 501/785-4241	Humanities	● Participant in Energy and The Way We Live Forums.	James M. Kraby, President Sandi Sanders	● EWLF material
	Facilities Conservation	● In-house conservation efforts, as the result of a preliminary energy audit include: - elimination of most domestic hot water, the installation of timers on climate control equipment, and the elimination of decorative lighting.		
	Alcohol	● On two occasions, college has provided conference facilities for a Fayetteville, Arkansas, based on group promoting the construction of small scale alcohol stills.	Edward Levy, Energy Coordinator	● Verified 3/24/81
	Facilities Conservation	● Utilizing a Schools & Hospitals Grant, technical assistance study has been conducted and an application for actual building modifications grant is pending.		

CALIFORNIA



Golden Poppy

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Allan Hancock College 1300 South College Drive Santa Maria, CA 93454 805/922-6966 ext. 222/292	Solar Alternate Facilities Conservation	• College offers Solar Energy courses. • College is developing an alternate energy program. • College has completed the first phase of energy auditing in an effort to reduce non-renewal fuel consumption.	Ted S. Sypolt Dick Dickson Applied Arts & Sciences	• Cal Guide • Verified 4/4/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
American River College 4700 College Oak Drive Sacramento, CA 95841 916/484-8211	Management Solar	• Managing the Energy Dilemma, Management 99, course. • Energy and the Quality of Life, 3-credit course offered through Math/Engineering department, with stress on energy conservation. • Physical Geography, 3-credit course offered through the Science department, covering bioconversion, centralized solar power systems, solar conversion, energy storage systems, heat and energy transfer, and solar heating. • Physical Geology, 3-credit course offered through the Science department, with focus on alternative energy sources, appropriate technology, energy conservation, and solar heating.	Jim Leavitt, Asst. Dean Mike Collins, Asst. Dean William Hunt, 916/484-8217 Robert Christopherson 916/484-8244 Charles Breitsprecher 916/484-8684	• EEP • NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Antelope Valley Community College 3041 W. Avenue K Lancaster, CA 93534 805/943-3241	Humanities Energy General	● Participant in Energy and The Way We Live Forums ● Every-day Energy, 3-credit course offered through the Physical Science department. ● College has offered non-credit programs: Solar Water Heating for Consumers and Solar Pool Heating. Planning additional offerings in active space heating, passive space heating, auditing, and weatherization.	C.W. Stine, Coord. ext. 243 Frank Roberts, Dean Technical Educ.	● 2/80 Survey Response ● Cal Guide

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Bakersfield College 1801 Panorama Dr. Bakersfield, CA 93305 805/395-4011	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Solar Heating and Cooling of Residential Buildings, 3-credit course offered through Industrial Education department with focus on solar components, domestic hot water, home construction, marketing/economic analysis, systems design, installation/maintenance, and systems testing/evaluation.	Ron McMasters, Coordinator Robert E. Tuttle 805/395-4571	● 2/80 Survey Response ● NSEED '80

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Barstow Community College 2700 Barstow Road Barstow, CA 92311 714/252-2411	Solar	● Introduction to Residential Solar Energy, 4-credit course offered through the Science department, with stress on energy storage systems, conservation, solar components, domestic hot water, solar heating, home construction and systems design	R.W. Graham ext. 257	● NSEED '80

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Butte College Route 1, Box 183A Oroville, CA 95965 916/895-2511	Solar	• Solar Energy Systems, 3-credit course offered through the Technology department, covering solar systems design, centralized solar power systems, solar components, conservation, heat and energy transfer, systems installation/maintenance, systems testing/evaluation, and solar home construction. • Solar Hot Water Systems Design and Installation, course offered through the Technology department, with stress on domestic hot water, systems design, and installation/maintenance.	Ken Young 916/895-2451 Chuck Alldrin 916/895-2451	• NSEED '80
	Environ- mental Education	• College offers Drinking Water/Wastewater certificate program.		• EPCG
	Energy General	• College has organized Energy Fairs covering all energy areas and presents displays at appropriate community activities. • Energy Conservation Principles and Regulations--Residential. This course is designed around the "Energy Conservation Design Manual for New Residential Buildings" to acquaint builders and contractors with the procedures, calculations, and documentations which must be completed before application for a building permit is made. The course includes instruction on the "Alternative Design" procedures that may be used to meet minimum design requirements.	William Earle, Director, Community Services Raymond Carrozza, 916/895-2451	• Cal Guide

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Butte College Oroville, CA 95965	Appropriate Technology	College works closely with the North Valley Center of Appropriate Technology (NVCAT) in development of self-reliance living projects, energy conservation and options workshops/seminars, and information sources.	Raymond Carrozza, 916/895-2451	Verified 4/15/81
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cabrillo College 6500 Soquel Drive Aptos, CA 95003 408/425-6000	Solar	• Solar Energy Technology, AA degree and certificate program with courses including: Solar Technology and Fabrication I & II; Solar Home Design I & II; Solar Remodeling I & II; Solar Energy in Agriculture; Applications of Solar Energy in Agriculture; Solar Electronics; Wind Energy; Solar Energy-Community Studies; Solar Field Studies; Solar Lab Projects; & Energy Conservation.	Ernest Martinez, Superintendent of Instruction 408/786-6600	• 1979 materials from Round-table on Approp. Tech., NSEED '80, Cal Guide
	Environ- mental	• AA degree program entitled Environmental Studies with energy-related courses.	Dave Burton, Director Solar Energy Dept. ext. 6235	• 2/80 Dean letter response with curriculum brochure
	Facilities Conservation	• In-house efforts include: -solar collectors for all water in college cafeteria; -solar Conference during the weekend of 1/19-20/80, in which 250 community members attended; and, -college has a staff member on the County Energy Commission Board.		• Verified 4/27/81

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Canada College 4200 Farm Hill Boulevard Redwood City, CA 94061 415/364-1212	Solar Conservation	● College offers Introduction to Solar Heating course. ● College has offered non-credit workshop Cut Your Gas and Electric Bill Up to 50%.	John Rhoads, Director Administrative Services Ruth Nagler, Director Extended Educ. Prog.	● Cal Guide

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Cerritos College 11110 Alondra Blvd Norwalk, CA 90650 213/860-2451	Solar	● Solar Heating and Design, 3-credit course, with focus on solar components, energy storage systems, heat and energy transfer, hybrid systems, materials, process heat, solar systems design, installation/maintenance, and plumbing techniques. ● Solar Heating Installation, 3-credit course offered through the Earth Science department, with focus on introduction to solar energy, passive solar systems, plumbing techniques, and solar system design.	Claude Hartman, ext. 316	● NSEED'80
	Audit	● College offers non-credit Energy Auditor Training Program, with the Chancellor's office and the Calif. Energy Commission.	C. Dean Paige, Assoc. Dean Science, Engineer- ing, and Math Division	● Cal Guide

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Cerro Coso College College Hghts Blvd Ridgecrest, CA 93555 714/375-5001	Solar	• AAS degree program Solar Energy Technology with emphasis on installation, design, sizing, research and testing of solar systems and components. Part of a national consortium effort funded by the National Science Foundation. The consortium center is Navarro College, Texas. Final product of this demonstration will be a complete curriculum package, including instructional materials, technical and support courses, staffing requirements, bibliographies, laboratory materials, instructional costs, and institutional requirements. The curriculum is built around 10 core courses. Other participating colleges are: Brevard Community College, Florida; Dallas County Community College, North Lake Campus, Texas; and Malaspina College, British Columbia, Canada. Also offers certificate program.	Robert L. Takacs ext. 55	• 3/80 Response Letter • Cal Guide

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Chabot College 25555 Hesperian Boulevard Hayward, CA 94545 415/786-6600	Solar	• College offers Solar Architecture courses. • Solar Energy and You, 3-credit course offered through the Physical Science department, with focus on conservation, hybrid systems, passive solar systems, and solar systems design.	Robert N. Brown, Chairman, Division of Technology & Engineer- ing	• 1/79 ERTA, TERC • Verified 4/3/81
Valley Campus Livermore, CA 94550 415/455-5300	Nuclear	• Certificate Program in Radiation Technology, with 5 core courses.	Arthur Delaray	

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Chaffey Community College District 5885 Haven Avenue Alta Loma, CA 91701 714/987-1737	Humanities	• Participant in Energy and The Way We Live Forums; offered for credit. • AAS degree in Solar Technology; courses include: Orientation to Solar Technology; Introduction to Solar Technology; Solar Hydronic Systems; Solar Heat Transfer, Solar Sizing; Blueprint Reading and Sketching; and, Solar Energy Seminar. Also offers Solar Technology Installation certificate program. • College is holding special energy classes both credit and non-credit in the community at libraries and other locations throughout the community. • College has held hands-on Solar Energy weekend workshops for solar water heating. • Energy Committee at the college advises on additional energy saving tactics; most committee members hold California Energy Auditor Certificates.	Joe Lawler, Director, Energy Conservation, ext. 239	• 2/80 Survey Response • Cal Guide • Verified 4/7/81

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Citrus College 18824 E. Foothill Blvd. Azusa, CA 91702 213/335-0521	Humanities	● Participant in Energy and The Way We Live Forums.	Ross Handy, ext. 210	● 2/80 Survey Response
	Solar	● Alternative Energy Sources, 3-credit course offered through the Physical Sciences/Engineering departments, with focus on alternative energy sources, solar components, conservation, energy storage systems, heat and energy transfer, passive solar systems, and solar cooling.	George Bratt ext. 379	● NSEED'80
	Environ- mental Education	● Solar Heat Installation, 2 credit course offered through the Public Service program. ● College offers certificate program in Drinking Water/Wastewater Treatment Technology.		● Cal Guide ● EPCG

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City College of San Francisco 50 Phelan Avenue San Francisco, CA 94112 415/239-3328	Solar	With a grant from the California Community College Fund for Instructional Improvement, the college implemented a solar energy project; purpose was to design, equip, and install a solar hot water system in a classroom building. The system is instrumented so that students can learn about it by monitoring its operation. There is also provision so that student-constructed solar collectors could be mounted and tested when operating within the system. The system became operational in mid-1979.	Shirley Kelly, Asst. Dean of Instruction	3/80 Response Letter

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Coastline Community College 10231 Slater Avenue Fountain Valley, CA 92708 714/963-0811	Petroleum	• Certificate program in Petroleum Technology, with 4 core courses providing 3 options: Field Tech. Supervision, Engineering Technology, Marketing/Service Management, can be used toward AAS degree.		• 1980-81 College Catalog
	Nuclear	• 3-credit course in Radiation and Mankind: Nuclear Energy for the Layman offered through Physical Science department, with stress on history, sources, uses, and abuses of nuclear energy.		
	Humanities	• Participant in Energy and The Way We Live Forums; offered for credit.	Roberta L. Weil, Coordinator, ext. 256	• EWLF material
	Facilities Conservation	• College offers independent study courses on television to reduce student commuting.	Peter Vander Haeghen Director, Learning Systems & Services	• AED
	Energy General	• College offers non-technical program for administrators, with stress on energy sources and uses and how to meet technical assistance needs.	Jack R. Chappell, Public Information Officer	
Area IV Finley Learning Center 13521 Edwards St. Westminster, CA 92683 714/989-9871	Solar	• Energy Management, certificate program offered through Area IV Educational Center, with focus on architecture-solar specialization, mechanical/electrical contracting, heating/ventilation/air conditioning electricity, and plumbing. Courses include: Energy Economics, Environmental Equipment, Lighting Systems Design, Management Planning, and Management Behavior. Involves instruction in knowledge and techniques of social and behavioral services applications to the solution of practical problems in energy.	Arthur S. Martinez 714/898-9871	• NSEED'80 • 3/80, 9/80 Response Letter • Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
College of Alameda Alameda, CA 95401 415/522-7221	Ecology	● College offers AA degree program in Environmental Studies.	Jeanette Poore, President	● 1/79 ERTA, TERC ● EEP, 1980
	Conservation	● Energy in the Home, 3-credit course designed to provide instruction on energy-saving strategies for the home. Discontinued because of low interest.	Thomas Hughes	
	Environ- mental Education	● Contemporary Problems, 5-credit course offered through the Physical Science department, with focus on present and projected environmental problems on a national scale. ● Man and His Environment, 3 5-credit courses offered as part of the Environmental Studies AA degree program, with emphasis on the major environmental problems man faces, including the energy crisis, energy sources, and alternatives.	Thomas Hughes	
	Energy General	● General Physical Science, 5-credit course offered as part of the Physical Science program with emphasis on basic physical laws, energy, resources, and pollution.	Henry Bell, Division Shairperson, ext. 269	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of Marin Kentfield, CA 94904 415/457-8811	Energy General	● Initiating a 3-unit introductory Energy class to satisfy General Education requirements in Physical Science.	Don Martin Energy Science Dept.	● 2/80 Response Letter
	Facilities Conservation	● Initiating an energy conservation program headed up by a faculty member; initial possibility in use of computer control HVAC system.	Don Martin Raymond Jackson Robert Thompson	
	Conservation	● Continuing participation and co-sponsoring of an Energy Conservation Training program with the California Energy Commission and the Chancellor's Office of the California Community Colleges. College serves as an educational center for maintenance, administration, and other community school and hospital staff seeking certification as Energy Auditors in the Federal Grant and State Loan Program; these classes involve 24 hours of Lecture/Laboratory instruction to acquaint students with the importance, theory, system, and audit procedure techniques. Alternative energy, solar retrofit potential and control systems techniques are emphasized.	Dick Rodgers Energy Science Dept.	
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Irwin Diamond President	● EWLF material
	Solar	● Energy Efficient Design, 16-contact hour course offered through the Adult Education department, with focus on alternative energy sources, appropriate technology, conservation, process heat, solar home construction solar marketing/economic analysis, solar swimming pool heating, systems design, installation/maintenance,	Dale Sartor	● NSEED '80

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College of Marin Kentfield, CA 94904 <u>CONTINUED</u>	Environ- mental Education Conservation	systems testing/evaluation, and wind energy conversion systems. ● Solar Energy Utilization course offered through the Adult Education department. ● College offers degree program in Environmental Studies. ● Participation in Curriculum Development and Classroom Instruction Program for State Energy Commission Title 24 Residential and Commercial Building Design Standards. ● Contributed to State Energy Commission Residential Conservation Service (RCS) Certified Examination Development. Also, a Curriculum is pending approval to establish campus as possible training site for auditors. A follow-up program is planned for the proposed Commercial and Apartment Conservation Service Program. ● Staff member is under grant/contract to assist in the development of evaluative criteria for Community College Chancellor's Office in processing requests for Energy Conservation Project Funding from 107 campuses state-wide. Energy Database and Information Management ideas utilizing a computer are proposed to assist the implementation of a systematic Facility Conservation Master Plan to examine the potential in Million Square Feet of Campus buildings.	Dick Rodgers Robert Petersen Energy Science Dept. Dick Rodgers Energy Science Dept. Dick Rodgers Energy Science Dept.	● Cal Guide ● EPCG ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of the Desert 43-500 Monterey Palm Desert, CA 92260 714/346-8041	Solar	● Introduction to Solar Energy, 3-credit course offered through the Engineering and Technology department, with focus on alternative energy sources, appropriate technology, centralized solar power systems, heat and energy transfer, solar cooling, solar heating, solar home construction, and wind energy conversion systems. ● Solar Technology I, 3-credit course offered through the Environmental Resources program, Department of Engineering and Technology, with focus on the applications of solar energy, specifically in building design. The course provides knowledge about the construction and applications of solar energy devices, such as flat plate collectors, pool heaters, parabolic reflectors, and south facing windows. The path of the sun throughout the day and the year, the heating and cooling requirements of houses, the efficiency, application, installation and cost of various available solar energy devices are taught; 3 hour lecture and TBA three hour laboratory per week. ● Solar Technology II, 3-credit course offered through the Environmental Resources program, Department of Engineering and Technology, is designed to demonstrate the practicality of solar energy for use in heating water, air or other	John Marzicola, ext. 201 Bruce W. Usher, ext. 290	● NSEED '80 ● Cal Guide ● Verified 3/31/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of the Desert Palm Desert, CA 92260		mediums and reuse of these mediums. Course explores methods, designs and installations of solar energy systems as well as maintenance and service of these systems.	Bruce Usher, Ext. 290	
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of the Sequoias 915 S. Mooney Blvd Visalia, CA 93277 209/733-2050	Solar	● Solar Applications, 3-credit course offered through the Architecture and Science departments, with focus on greenhouse techniques, active and passive solar systems, domestic hot water, and solar heating and cooling	Richard S. Cottrell ext. 206	● NSEED'80 ● Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of Siskiyou 800 College Avenue Weed, CA 96094 916/938-4463	Humanities	● Participant in Energy and The Way We Live Forums.	Fred Redelsperger	● 5/19/80 Letter
	Alcohol	● College is grantee in 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale. ● Expecting State Department of Food and Agriculture grant to establish an AA degree curriculum in appropriate technology, with funds to provide for instruction in the technology of low-cost alcohol still construction/operation and active demonstration/loan of low-cost alcohol fuel production equipment. College has purchased one still and begun construction of two others. College has developed plans to create a video course on alcohol fuels.	John P. Clark, Coordinator Alcohol Fuel Technology Program and Department of Natural Resources	
	Solar	● Credit course Alcohol Fuel Production ● Credit courses The Solar Home and Solar Panel Construction.		
	Energy General	● Non-credit classes Home Methods of Food Preservation and Backyard Farming.		
	Appropriate Technology	● College is preparing an appropriate technology curriculum with a strong emphasis on alternative energy: objectives include summer workshops on appropriate technology, establish library and media facilities for appropriate technology, and construction on campus of an energy		

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College of Siskiyou Weed, CA 96094 <u>CONTINUED</u>		efficient farmstead to serve as instructional laboratory and community example. ● College is planning to build a producer gas powered solar greenhouse on campus. The greenhouse will serve as a lab for appropriate technology classes and as a demonstration for the community. ● College is planning to conduct intensive summer workshops on appropriate technology. Topics will include: Solar Space Heating, Stackwood Construction, Alcohol Fuel Production, Alcohol Still Construction, and French-Intensive Organic Gardening.		

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Contra Costa College 2600 Mission Bell Drive San Pablo, CA 94806 415/235-7800	Humanities	● Participant in Energy and The Way We Live Forums.	H. Rex Craig	● 2/90 Survey Response
	Solar	● Solar Energy Technology certificate program, supported with CETA funds; courses included active solar svstems, electricity and controls, hydronics, warm air heating and air conditioning, and refrigeration and gas burners.	Ken Jackson, Director, Tech. and Industrial Educa- tion	● Cal Guide
	Facilities Conservation	● College offers incentives program, returning saved energy costs to the college units responsible; savings are placed in a fund for new conservation projects. ● In October 1980 the college received a large Schools & Hospitals grant to build a solar heating system for its outdoor, olympic-size swimming pool; install an integrated solar-assisted swimming pool; install a computerized energy control system for the five buildings in the Humanities complex; and install infra-red radiated space heaters for the vocational arts and library buildings.		● AED ● 10/80 News-release
	Environ- mental Education	● College offers certificate program in Drinking Water/Wastewater Technology.		● EPCG

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Cosumnes River College 8401 Center Pkwy Sacramento, CA 95823 916/421-1000	Solar	• Solar and Alternative Energy Systems AAS and Certificate program offered through the Environmental Design department, with stress on architecture-solar specialization, solar system installation-residential, general contracting-specialization in solar design/installation, and do-it-yourself/home installation. Courses include: Introduction to Solar Energy, Alternate Energy Systems, Residential Energy Conservation, Residential Conservation Service Auditor, Passive Solar Home Design, Solar Heated Water Systems for the House, Solar Water Heating Systems Construction, Solar Water Heating Systems Installation, Plant Selection for Environmental Control--all required courses.	Harold House, ext. 232	• 5/5/80 Letter and NSEED'80 • Cal Guide
	Environ- mental Education	• College offers degree program in Pesticides and Toxicology Technology.		• EPCG • Verified 4/7/81

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Cuesta College P.O. Box J San Luis Obispo, CA 93406 805/544-2943	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Application of Solar Energy Systems, 4-credit course offered through the Construction Technology department, with focus on heat and energy transfer, energy storage systems, solar components, solar hot water, solar heating, and solar cooling.	Wallace E. English, ext. 237 Peter Lagomarsino	● 2/80 Survey Response ● NSEED'80

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Cuyamaca College 2950 Jamacha Road El Cajon, CA 92020 614/464-1980	Solar	• Offers an eight-week course, Buying Solar Hot Water Heaters; course is offered through the Industrial Technology department and supplies technical and financial information to consumers to assist in the selection of a solar water-heating system. The class includes discussion of solar systems and components, economic considerations and tax incentives.	Phyllis L. Wiedman, Ed. D., Vice Pres. for Instruction and Student Services	• 3/80 Dean Response Letter
	Facilities Conservation	• College used a four-day work week during the summer months.		• Verified 3/27/81
	Energy General	• Energy Sources and Power Distribution 3-credit course offered through the Engineering department.		
	Solar	• Offers 16-week, 3-unit lecture course, Introduction to Solar Energy Applications through Industrial Technology department. First course for solar installers and technicians; covers solar principles, heat calculations, solar radiation, solar components and systems, testing and assembly. • Offers 16-week 1-unit 3 hours per week lab course, Solar Energy Laboratory in Industrial Technology department. Teaches principles of solar energy applications in structured lab experiments.	Donald J. Ferris	

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Cypress College 9200 Valley View Cypress, CA 90630 714/826-2220	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Energy Crisis - Alternative Sources, 3-credit course offered through the Engineering Technology department, with focus on alternative energy sources. ● Environmental Geology, 3-credit course offered through the Geology department, with stress on alternative energy sources, conservation, and energy storage systems. ● Geological Phenomena, 3-credit course offered through the Geology department, with focus on alternative energy sources and ocean systems. ● Energy and Environment, 3-credit course offered through the Engineering Technology department with emphasis on the mathematical solutions to various practical problems involving the economics of energy and the environmental impact of energy use.	James R. Phillips Ext. 192 Michael G. Jacobs, Ext. 156	● 2/80 Survey Response ● NSEED '80 ● Verified 3/31/81

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De Anza College Cupertino, CA 95014 408/996-4567	Solar	● 54-hour course, Solar Energy for the Homeowner, offered through the Engineering and Technology Division, with focus on pool heaters, hotwater heaters, and active and passive systems for home space heating. ● Design of Solar Energy Systems - Heating and Cooling, 2-credit course offered through the Engineering department. More advanced course (2-credits) also offered, with focus on solar marketing/economics analysis and solar systems design. ● Utilization of Solar Energy, 3-credit course offered through the Engineering department. ○ Solar Energy for the Consumer, 1-credit course offered through the Industrial Technology department.	R. Wedel 408/493-4411	● SOLNET, JULY 1980 ● NSEED '80
	Alcohol	● College has offered non-credit workshop on Alcohol Production.	R. Kent, Dean of Sciences	○ Cal Guide
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Roland Chase, Dir., Community Services	● EWLF material

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Diablo Valley College 321 Golf Club Road Pleasant Hill, CA 94523 415/685-1230	Solar	- Collector Heating Systems course offered in Air Conditioning program. - Buildings and Energy, 3-credit course offered through the Architecture and Engineering departments, with focus on distributed solar power systems, heat and energy transfer, energy storage systems, solar cooling and heating, and solar systems design.	John G. Kelley, Dean of Instruction	1/80 Response Letter
	Energy General	AA degree in Geo-Science Technology, training needed technicians to assist in research and development of energy sources.	Colin McGlibery, ext. 427	NSEED'80
	Facilities Conservation	Summer courses are scheduled to reduce the need for air conditioning; hot water is no longer available in restrooms; thermostats are correctly set; and incandescent lamps are being replaced.	Barrie W. Bormann, Coordinator	
	Humanities	Participant in Energy and The Way We Live Forums.		2/80 Survey Response - Verified 4/17/81

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Feather River College P.O. Box 1110 Quincy, CA 95971 916/283-0202	Energy General	Physical Science 70-"Energy Yesterday, Today and Tomorrow"; 3 credit course; historical perspective; development of energy use; present and future energy options.	Bill Martin	July 1980 SOLNET
	Solar	- College took lead in the solar design of a 43-unit housing development for senior citizens in the community; worked with State Housing Rural Development Office on the engineering and economics of the complex including partial solar space heating with pre-piping, wiring, and mounting brackets for future active hot water systems. - College has received \$10,000 materials grant to place solar hot water pre-heat systems in four senior adult nutrition centers and four low income households. - Solar Systems Short Course, 1/2-credit, 2-day session with a tour of county solar installations. - Solar Utilization and Design, 1 1/2-credit course with stress on advanced solar techniques for use on residential buildings, including collection and storage sizing, basic engineering concepts, and economic analysis.		
	Alternate	Alternate Energy Laboratory, 1/2-credit, 9-week course with hands-on construction training to build solar and energy conservation devices.		
	Conservation	Energy Standards for New Residential Construction, 1 1/2-credit course with focus on information and design criteria to meet State standards.		

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Feather River College Quincy, CA 95971	Alternate	analysis. • Alternate Energy Laboratory, 4-credit 9-week course with hands-on construction training to build solar and energy conservation devices.		
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Foothill College 12345 El Monte Rd. Los Altos Hills CA 94022 415/948-8590	Management Humanities Solar	● Offers series of energy-related courses in the Resource Management AA degree program. ● Participant in Energy and The Way We Live Forums; offered for credit. ● Solar Energy, 4-credit course offered through the Engineering and Technology department with focus on passive solar systems, solar domestic hot water, solar heating, and solar swimming pool heating.	James S. Fitzgerald President Blanchard, Heinemann, Schiavo	● 1/79 ERTA, TERC ● EWL material ● NSEED '80

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Fresno City College 1101 E. University Fresno, CA 93704 209/442-4600	Solar	● College offers special solar study Certificate program through the Heating, Ventilating, and Air Conditioning curriculum, Technical and Industrial department. Courses include Solar Systems, 3-credit course with focus on solar components, heat and energy transfer, introduction to solar energy materials, and plumbing techniques. ● Energy, 18-contact hour course offered through the Earth and Physical Science department, with focus on alternate energy sources, bioconversion, conservation, solar heating, solar home construction, and wind energy conversion systems. ● Solar Energy, 2-credit course offered through the Earth and Physical Science department, with focus on solar heating and introduction to solar energy.	Dennis C. Wash, ext. 8523 Richard S. Brown, ext. 8429	● NSEED'80
	Environ- mental Education	● College offers certificate program in Drinking Water/Wastewater Technology.		● EPCG

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Fullerton College 321 E. Chapman Avenue Fullerton, CA 92634 714/871-8000	Environ- mental Education	College offers degree program in Environmental Science/Health through the Life Science department.	Philip Borst, President	EPCG

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Glendale Community College 1500 N. Verdugo Rd Glendale, CA 91208 213/240-1000	Humanities General	● Participant in Energy and The Way We Live Forums. ● 8-week, 2-credit introductory, non-technical overview of the nature of energy; purposes are to provide recognition of the depletion of traditional sources of national and world-wide energy, and to provide appreciation of viable alternatives; emphasis is on principles and information needed for making decisions rather than on technical data.	Edward F. Tennen, Coordinator, Instructional Support Services ext. 272	● 2/80 Survey Response and 5/29/80 Letter

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Golden West College 15744 Goldenwest Street Huntington Beach, CA 92647 714/892-7711	Solar	Applied Solar Energy, credit course offered through the Science and Health departments, designed to acquaint the novice with the practical uses of solar energy in the home. Topics include the history of solar energy, nature of solar radiation, collection principles, and economic considerations.	Lowell Karre	9/80 Survey Response

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Imperial Valley College P.O. Box 158 Imperial, CA 92251 714/352-8320	Alternate	• Alternate Energy Technician Training certificate program, supported by CETA funds; 9-month program with 40% classroom and 60% hands-on instruction and 18 additional weeks of OJT; focus includes alcohol production, wind and geothermal energy, and active and passive solar systems.	Phil Champagne Alternate Energy Coordinator Ext. 228	• Cal Guide
	Training Center	• U.S. Department of Energy has given college use of its East Mesa Test Facility so that an engineering and Technician training center for 'geothermal energy may be established.	Phil Champagne	
	Solar	• College offers non-credit Do-It-Yourself Solar Energy Workshops Classes.	Phil Champagne	
	Environmental Education	• College offers certificate and degree program in Potable Water Technology.	Pete Mellinger, Instructor, Agriculture Depart. Ext. 331	• EPCG
	Alcohol	• College has two ethanol conversion plants and offers 6-week classes in fuel alcohol production and equipment conversions for use of ethanol.	Phil Champagne	• Verified 3/30/81
	Wind	• College possesses one IKW wind turbine and offers 2-day workshops to study installation requirements for wind units.	Phil Champagne	
	Conservation	• College has a California certified energy auditor and conducts training workshops on a demand basis.	Phil Champagne	

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Indian Valley Colleges 1800 Ignacio Blvd. Novato, CA 94947 415/883-2211	Humanities Energy General Audit	● Participant in Energy and The Way We Live forums. ● AAS degree in Energy Technology, planned and approved, expect first offering 80-81. ● College offers non-credit Energy Auditor Training Program, with Chancellor's office and California Energy Commission.	Gerald F. Burroni, Dean, College of Social and Behavior- al Science, ext. 200	● 2/80 Survey Response ● Cal Guide ● Verified 4/2/81

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Lake Tahoe Community College P.O. Box 14445 S. Lake Tahoe, CA 95702 916/541-4600	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Solar Energy, 1-credit course offered through the Physical Science department. Additional Physical Science courses are Passive Solar for Builders and The Self-Sufficient Home.	Kerry Campbell-Price Ext. 25 Mike Noble, Ext. 44 Roger Welt, Assoc. Dean of the College	● EWLF material ● NSEED'80 ● Cal Guide ● Verified 4/10/81

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Lassen College Susanville, CA 96130 916/257-6181	Geothermal Alternate Solar	● ERDA (DOE) has funded the college to conduct geothermal research/demonstration project. ● Alternate Sources of Energy, 1-credit course offered through the Physical Science program. ● Students in Construction Trades program build solar energy homes.	Robert Theiler, President Jim Sweet, Ext. 112 Jim Sweet	● Doggette Study, pg.17-18 ● Cal Guide ● Verified 4/8/81

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Long Beach City College 1305 E. Pacific Coast Highway Long Beach, CA 92683 213/420-4111	Solar Energy General	• College offers solar specialization in its AA and Certificate Refrigeration and Air Conditioning program. • Energy for The Future, 3-credit course offered through the Environmental Science program.	Dave Diranna Carl Wolff 213/420-4575 Les Harris, Dean Occupational Educ.	• NSEED'80 • Cal Guide

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Los Angeles City College 855 N. Vermont Ave Los Angeles, CA 90029 213/663-9141	Solar	● College offers non-credit course Solar Energy--Building Your Own Solar Energy System, with discussion on energy problems and solutions, using insulation you can make, simple ways to increase garden yields, sources of equipment, inexpensive-to-elaborate systems, collector designs, and how to build a system.	Glenn D. James, Ext. 253	● 1/80 Response Letter ● Verified 3/31/81

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Los Angeles Harbor College 1111 Figueroa Pl. Wilmington, CA 90744 213/518-1000	Humanities Ecology Solar	● Participant in Energy and The Way We Live Forums. ● College offers a series of 6 Ecology courses. ● Solar Engineering Technologist AA/AS degree program, draws courses from Air Conditioning and Refrigeration, Electronic Engineering Technologist curricula; special solar courses include: Introduction to Solar Energy; Collectors and Energy Storage; Solar Sizing, Design, and Retrofit; Materials and Materials Handling, Operational Diagnosis I; Operational Diagnosis II, Heat Pump Theory; Non-Residential Applications and Future Technology; Economics, Codes, Legal, Consumerism; and Solar Projects Laboratory. ● College offers non-credit Solar Domestic Hot Water Workshop for Installers and Builders.	Frank Sonico, Jr. Ext. 213 Ken Fiske, ext. 213 Ken Fiske, ext. 213 Community Services	● EWLF material ● 1/79 ERTA, TERC ● Cal Guide ● Verified 3/30/81

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Los Angeles Mission College 1101 San Fernando Road San Fernando, CA 91340 213/365-8271	Solar Environ- mental Education	● College offers non-credit Solar Collectors Workshop. ● College offers degree program in Environmental Studies through Inter-departmental Program in Environmental Studies.	Art Hernandez, President Community Services Department	● Cal Guide ● EPCG

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Los Angeles Pierce College 6201 Winnetka Ave. Woodland Hills, CA 01371 213/347-0551	Solar Environ- mental Education	● College offers non-credit work-shop Solar Energy - An Alternate Energy Source. ● College offers degree program in Environmental Studies through Earth and Life Sciences department.	Herbert W. Ravetch, President Community Services	● Cal Guide ● EPCG

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Los Angeles Trade- Technical College 400 West Washington Blvd. Los Angeles, CA 90015 213/746-0800	Solar	● Air Conditioning and Refrigeration Technology AA degree and certificate program offers a solar specialization. Solar-related courses include: - Energy Management in Buildings, 3-credit course offered through the Mechanical/Electrical department, with focus on conservation and heat and energy transfer. - Solar Energy, 3-credit course offered through the Mechanical/Electrical department, with focus on solar components, energy storage systems, heat and energy transfer, solar domestic hot water, solar home construction, marketing/economic analysis, and installation/maintenance.	Al Walter Alerich, Ext. 267 N. Adams, Ext 273	● NSEED'80
	Environ- mental Education	● College offers degree programs in Environmental Studies and Drinking Water/Wastewater Technology.		● EPCG

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Los Angeles Valley College Van Nuys, CA 91401	Audit	College offers Energy Audit Program, AA degree.		1/79 ERTA, TERC
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Los Medanos College 2700 E. Leland Road Pittsburg, CA 94565. 415/439-2181	Energy General	● An Ethical Inquiry Into The Societal Issues of Energy, 3-credit course offered through the Physical Science program. ● Solar Energy & You, 1-credit course offered through the Physical Science program. ● Solar Energy & Conservation, 2-credit course offered through the Biological Sciences program.	Stanley H. Chin, Dean National Science and Related Occupations	● Cal Guide

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Mendocino Community College Ukiah, CA 95482 707/462-0571	Solar	College offers 16-semester units of instruction in both active and passive solar design and installation for hot water and space heat in both new and retro-fit homes.	Bob Pyle, Dean of Vocational Education	Verified 5/4/81

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Merced College 3600 "M" Street Merced, CA 95340 209/723-4321	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit. ● College has established a Certificate of Completion for Solar Technician; courses include: - Agriculture Mechanics, 3 units - Industrial Safety, 1 unit - Energy Systems and Conservation, 3 units - Solar Energy - Residential Applications, 3 units - Refrigeration and Air Conditioning, 3 units - Service and Maintenance - Fundamentals of Arc and Oxy-Acetylene Welding, 2 units - Print Reading and Sketching, 2 units - General Electricity - Electronics, 3 units	James Cox James W. Cox, Instructor of Industrial Tech. Division	● 2/80 Survey Response and ● NSEED'80

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Merritt College 12500 Campus Drive Oakland, CA 94619 415/531-4911	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Susanne M. Dye, Ext. 211	● 2/80 Survey Response
	Solar	● Self-Reliant Ecology, 4-credit course with focus on alternate energy sources, appropriate technology, centralized solar power systems, energy storage systems, conservation, solar heating, solar home construction, and solar systems design. Ecology program also offers: Household Self-Reliance, 1-credit; Alternative Energy Sources, 1-credit; Appropriate Technology Lab, 1-credit; and Solar Energy for the Home, 1-credit.	Charles Ford, Ext. 278	● NSEED'80
	Energy General	● Surviving the Energy & Resource Crises, 3-credit course offered through the Biological Sciences program.	Lloyd G. Baysdorfer Asst. Dean of Instruction	● Cal Guide
	Environmental Education	● College offers degree program in Environmental Science/Health through the Division of Science/Mathematics.		● EPCG

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Mira Costa College 1 Barnard Drive Oceanside, CA 92054 714/757-2121	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● College has offered a solar energy seminar.	Gail Prentiss, Ext. 212	● 2/80 Survey Response ● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mission College 3000 Mission College Blvd. Santa Clara, CA 95050 408/988-2200	Energy General Audit	● Energy, 3-credit course ● College offers non-credit Energy Auditor Training Program, with Chancellor's office and California Energy Commission.	T.A. Thode Community Services	● Cal Guide

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Modesto Junior College Modesto, CA 05350		1977-78 the first solar water heating system for a dairy in the Western U.S. The system was used to heat the hot water demands for the dairy. ● Solar Class: Solar Energy Application a Physical Science class, emphasizes conservation, passive and active systems. An advanced course is in the making.		
<u>CONTINUED</u>	Wind	● Wind: has had a windmill as part of its education complex for the last twenty years and it has been referred to in various courses as a "working, practical technology" with application to agriculture and other industries found in the San Joaquin Valley.		
	General	● <u>Consumer Information Bulletin</u> is regularly distributed to individuals throughout the district; contains energy information. ● Held workshops to improve the state of public understanding of energy related matters. The workshops were held through the Engineering and Physical Sciences department as a sub-contractor to the Northwest College and University Association for Science--NORCUS.		
	Methane	● The College and Pacific Gas and Electric are currently collaborating on a methane generating project on a dairy in the district. The city has provided the college with enough methane to test against other alternate fuels.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Monterey Peninsula College District 980 Fremont Street Monterey, CA 93940 408/646-4000	Conservation	● Conducts energy center with California Energy Extension Service of the Office of Appropriate Technology funds; eighteen month project which includes hotline services, workshops, in-service training for K-14 teachers; target audience includes building industry, teachers and consumers. Videotapes from seminar on small wind generators and energy corner-A Series For Teachers available.	Philip Nash, 408/646-4035	● June '80 Save Energy CA Energy Extension Service News- letter
	Solar	● Energy Efficient Homes, 3-credit course offered through the Engineering department, with focus on appropriate technology, heat and energy transfer, energy storage systems, solar marketing/economic analysis, passive solar systems, photovoltaics and solar cells, and solar heating and cooling.	David Knight, 408/646-4185	
		● Alternate Energy Technician certificate program, with CETA funding; covers all areas of alternate energy with emphasis on solar; courses include Solar & Alternate Energy Systems, Solar Systems and Energy Conservation, Alternate Energy Practicum, and Basic Skills/Alternate energy.	David Knight 408/646-4185	● Cal Guide
		● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material ● Verified 4/21/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Moorpark College Moorpark, CA 93021 805/529-2321	Solar	• Solar Heating Construction Institute, 2-credit course offered through the Technology department, with focus on appropriate technology and solar domestic hot water.	Ken Ainge	• NSEED '80

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Mt. San Antonio College 1100 N. Grand Ave. Walnut, CA 91789 714/594-5611	Solar	● Air Conditioning, Heating, and Refrigeration AA degree curriculum has Solar Study offerings. Solar courses given through the Electronic department include: - Solar and Alternate Energy Sources, 3-credit course with focus on appropriate technology, conservation, heat and energy transfer, solar marketing/economic analysis, systems installation/maintenance, and systems testing/evaluation. - Solar Energy Systems Installation, 3-credit course with focus on solar systems design, systems installation/maintenance, and systems testing/evaluation; 1-credit lab gives experience in installing and maintaining solar conversion systems. ● Solar Energy, 3-credit course offered through the Physical Science department.	Clifford Dillon 714/594-5611 Jay Bormann 714/594-5611	● NSEED'80
	Energy General	● Energy Options and Issues, 3-credit course offered through the Physical Science department.	Irvin Colt, Admin. Dean, Occupational Programs	● Cal Guide
	Geothermal	● Geothermal Energy, 1-credit course offered through the Physical Science department.		
	Nuclear	● Nuclear Energy, 1-credit course offered through the Physical Science department.		
	Energy General	● College offers non-credit course Energy Resources, with focus on solar conversion, wind, photovoltaic, and geothermal.	Community Services 714/594-5611	

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Mt. San Jacinto College 21,400 Highway 79 San Jacinto, CA 92383 714/654-7321	Solar	● Courses offered through the Vocational Education department are: - Solar Collector Design, 3-credit course, with focus on heat and energy transfer, hybrid systems, materials, solar domestic hot water, solar heating, solar systems design, solar systems installation/maintenance, and solar systems testing/evaluation. - Solar Energy Applications, 3-credit course, with focus on distributed solar power systems, conservation, energy storage systems, heat and energy transfer, passive solar systems, solar heating, solar home construction. - Solar System Design, 3-credit course, with focus on centralized solar power systems, distributed solar power systems, energy storage systems, solar heating, and solar systems design.	Benton Caldwell	● NSEED'80 ● Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Orange County Community College District 1000 North Lemon Street Fullerton, CA 92634 714/871-4030	Energy General Solar Facilities Conservation	● Cypress College offers credit courses through Engineering Technology, The Energy Crisis-Alternate Sources, 3 units; Economics, Economic Aspect of Energy, 3 units; Energy and Environment, 3 units. ● District Adult Education department offers "Solar Energy Training Program." 8-week class. ● District employees are encouraged to participate in car-pooling through the services of "Commuter Computer" which is an area-wide ride-sharing service organization. ● College district has engaged the services of a mechanical engineering firm to determine the feasibility of retrofitting two campus buildings. ● New light fixtures will have both energy saving tubes and ballasts. ● Custodial procedures are being considered to help reduce the amount of electrical energy consumed. ● Mechanical equipment being controlled manually whenever possible to keep room temperatures within federal guidelines.	George S. Conner, Planning Administrator	● 3/80 Survey Response

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Ohlone College P.O. Box 3909 Fremont, CA 94538 415/657-2100	Solar	Personal Use of Solar Energy, 3-credit course offered through the CFS program.	Frank Naka Sako, Asst. Dean, Instruction	- Cal Guide - Verified 4/6/81

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Orange Coast College 2701 Fairview Road Costa Mesa, CA 92626 714/556-5542	Environ- mental Education	● 12-week program in Wastewater Technology - 12-units of college credit - 3 days classroom - 2 days "hands-on" instruction at wastewater plants - program offers instruction in: water, wastewater treatment, secondary wastewater treatment, sludge treatment and disposal, effluent treatment, treatment plant instrumentation, plant maintenance, plant management, water and wastewater sampling and testing.	Silas Bruce, Program Director 714/556-5568	● 1/2/80 In-house Release from College
	Conservation	● College offers Energy Auditor Training Program with instruction in conservation principles and procedures to determine appropriate energy conservation practices for public facilities; includes on-site applications. Program completers are certified by state Energy Commission to conduct energy audits of public buildings and facilities.	William Abernathy 714/556-5812	● SOLNET, July '80
	Solar	● Power Engineering certificate/degree program includes solar specialization in HVAC and solar system installation-residential. Specific courses include: - Solar Heating and Air Conditioning, 3-credit course with focus on centralized solar power systems, distributed solar power systems, energy storage systems, solar heating, solar home construction, and solar systems design. - Solar II, 3-credit course with focus on heat and energy transfer,	William Abernathy	● NSEED'80

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Orange Coast College Costa Mesa, CA 92626	Environ- mental Education	solar cooling, domestic hot water, and solar heating. ● College offers Radiation Program through the Consumer and Health Sciences Division.		● EPCG
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oxnard College P.O. Box 1600 Oxnard, CA 93032 805/488-0911	Alternate	● Energy Conservation & Alternate Energy Sources, course offered through the Ecology program.	Fernando Cuevas Divison Director Math/Science	● Cal Guide

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Palo Verde College 811 W. Chanslorway Blythe, CA 92225 714/922-6168	Alternate	• Energy Conservation/Alternate Energy Sources, course offered through the Physical Science department.	Margaret H. Arter, Dean of Instruction	• Cal Guide

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Palomar College 1140 West Mission Road San Marcos, CA 92069 714/744-1150	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers certificate program in Wastewater Treatment and certificate and degree opportunities in Potable Water Technology.	Candice Francis ext. 245	● EWLF material ● EPCG

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Pasadena City College 1570 East Colorado Boulevard Pasadena, CA 91106 /578-7301	Energy General	● College offers two credit courses: <u>Energy 100, Energy Sources, Resources and Uses:</u> Resources assessments and use including social, economic, and pollution considera- tions. <u>Energy 102, Energy Management in Structures:</u> analysis of energy use in buildings. ● Non-credit course: Fundamentals of Energy Management: entry level job training skills introduction, and Solar Energy for The Consumer.	Vernon C. Halcromb, Dean of Occupational Education	● 2/80 Response Letter
	Facilities Conservation	● In-house conservation efforts include: - car pooling, - staff forums on energy conserva- tion strategies, and - memos to staff regarding on-going energy conservation efforts.		● Cal Guide ● Verified 4/3/81

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Reedley College 995 North Reed Ave Reedley, CA 93654 209/638-3641	Environ- mental Education	• College offers certificate and degree program in Pesticides and Toxicology Technology.	Ray A. Cattani, President	• EPCG

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Rio Hondo College 3600 Workman Mill Road Whittier, CA 90608 213/692-0921	Nuclear	● College offered energy seminar exploring "What Really Happened at Three-Mile Island?", open to public, with discussion on overview of power plants, cause of accidents, the Nuclear Regulatory Commission's role and the future of nuclear power.	Jack Fraizer	● 1/3/80 College News Release
	Humanities	● Participant in Energy and The Way We Live Forums.	Yoshio C. Nakamura	● EWLF material

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Riverside City College Riverside, CA 92506 714/684-3240	Solar	● Solar Energy Applications, 5-credit course offered through the Air Conditioning department, with focus on appropriate technology, conservation, heat and energy transfer, energy storage systems, solar components, solar systems design, systems installation/maintenance, solar heating and cooling, and solar swimming pool heating.	Frank W. Budd	● NSEED'80

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Sacramento City College 3835 Freeport Boulevard Sacramento, CA 95822 916/449-7531	Alternate	● Mechanical-Electrical Technology AS degree program, day classes, offers two-year curriculum of lecture, lab and shop classes dealing with mechanical-electrical equipment and systems, including operation and maintenance of HW solar and PV solar systems, with overall program emphasis an alternative energy system operation and maintenance. ● Mechanical-Electrical Technology AA degree evening program offers Alternate Energy Option; program includes Alternative Energy Conservation (3-credits), Active Solar Systems (3-credits), Basic Solar Photovoltaic and Wind Energy Systems (3-credits), and Basic Electric Vehicle Operation and Maintenance (3-credits).	Donald M. Milliken 916/449-7358 Douglas Stinson 916/449-7278 Don Goff, Asst. Dean, Occupational Tech. 916/449-7568	● Cal Guide ● Verified 4/6/81

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Saddleback Community College District 28000 Marguerite Parkway Mission Viejo, CA 92692 714/831-4800	Facilities Conservation	● Energy Conservation program started in the summer of 1976, savings over 30% the first eight months or \$140,000. Program financed out of general funds. In process of applying for federal funds to expand the program to retrofit some of the facilities for better energy efficiency. Specific strategies include: -computer control of heating/air conditioning -lighting reduction in non-essential areas -adjust thermostats for minimum heating and cooling -installed small heating/air conditioning units where climate control necessary to avoid using central system -installed more efficient lighting -promoted conservation in communications with faculty and students	George Gilbert, Coordinator of Buildings	● 1/80 Response Letter
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material
	Environ- mental Education	● College offers certificate program in Pesticides and Toxicology Technology and a degree program in Environmental Studies.		● EPCG
	Solar	● Solar Energy Systems Installer certificate program offered through the Environmental Studies department; courses include Introduction to Solar Energy, 2-credits; Solar Construction I and II, 2-credits each; Domestic Hot Water Systems, 2-credits; Pool and Space Heating,	Lee Waian, Coord., Environmental Studies 714/831-4694	● Cal Guide

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San Diego City College 1313 12th Avenue San Diego, CA 92101 714/230-2400	Humanities Solar Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● Air Conditioning, Heating and Refrigeration Technology degree program includes focus on solar specialization in mechanical/electrical contracting, solar system installation - residential and commercial/industrial, and solar technology - instrumentation, controls, design, and maintenance. ● College offers degree program in Environmental Studies through the Urban Planning and Environmental Management Program.	Allen J. Repashy, President Charles Warnock, 714/230-2610	● EWLf material ● NSEED'80 ● EPCG ● Verified 4/6/81

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San Diego Mesa College 7250 Mesa College Drive San Diego, CA 92111 714/279-2300	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Allen Brooks, President	● EWLF material
	Solar	● Utilization of Solar Energy, 4-credit course offered through the Building Construction Technology department, with focus on heat and energy transfer, and introduction to solar energy.	M.M. Reeder, ext. 378	● NSEED'80
	Audit	● College offers non-credit Energy Auditor Training Program, with Chancellor's Office and California Energy Commission.	Bob Gray, Director Community Service	● Cal Guide

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Santa Ana College 17 at Bristol St. Santa Ana, CA 92706 714/835-3000	Humanities Alternate Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● Energy Technology AAS and certificate program offered through the Environmental Studies program; courses include Solar Energy Technology I and II, 3-credits each; Solar Energy, Sources and Principles 3-credits; Wiring/Circuitry/Control for Solar Applications, 3-credits; Energy Resources, Present and Future, 3-credits; Geothermal Energy Resources, 3-credits; Aquaculture & Hydroponics, 2-credits Biomass & Energy Production, 1-credit; energy: Problems and Decisions, 2-credits; and Water Sources & Conservation, 2-credits. ● College offers degree programs in Drinking Water/Wastewater Technology and Environmental Studies.	Theodora Edwards, Ext. 279,324,262 Donna Farmer, Dean Applied Arts & Sciences	● EWLF material ● Cal Guide ● EPCG

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Santa Barbara City College 914 Santa Barbara Street Santa Barbara, CA 93101 803/962-8144	Humanities Ecology	● Participant in Energy and The Way We Live Forums. ● College offers ecology courses.	Joseph A. Bagnall	● EWLF material ● 1/79 ERTA, TERC

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Santa Rosa Junior College 1501 Mendocino Ave. Santa Rosa, CA 94501 707/527-4431	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Roy G. Mikalson, Supt. - President	● EWLF material
	Faculty Development	● College is grantee under the 1980 USDOE Faculty Development Education Program; Oceans and Energy Development, 11-day course for 30 high school teachers, with stress on past, present, and possible future development of energy from the ocean.	Robert D. Rubin, Biology Department	● USDOE Announcement
	Solar	● Getting Into Hot Water Through Solar Heating, course offered through Community Service program.	Charles Belden, Assoc. Dean, Occupational Education 707/524-4252	● Cal Guide
	Faculty Development	● College is grantee in the 1981 Faculty Development Program; 11-day seminar for high school teachers, with focus on Ocean and Energy Development. Also, 25-day seminar for high school teachers, with focus on Energy Education and Productive Applications in High School.	Dr. Robert Rubin and Dr. Vincent Hoagland 707/527-4483 Dr. David Stern 415/652-0709	● USDOE Announcement

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Shasta College 1065 N. Old Oregon Trail Redding, CA 96001 916/241-3523	Greenhouse	● College offers 1-credit, 18 hour workshop on Greenhouses.	Lloyd Livingston and Dave DuBose	● Cal Guide
	Solar	● College offers 1-unit solar panel construction classes (hands-on program).		● Verified 4/10/81
	Conservation	● College offers 1-unit course in energy conservation around the home, and 1-unit hands-on workshop on methods of saving energy around the home.		

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Sierra College 500 Rocklin Road Rocklin, CA 95677 916/624-3333	Management	● Energy Management Technician AAS and certificate program; specialty courses include Energy Management Principles, 3-credits; Applied Energy Economics, 3-credits; Energy Management and Human Behavior, 3-credits; Low Cost Low Energy Housing, 3-credits; Identification and Ecology of Ornamental and Native Plant Materials, 3-credits; and Solar Energy Housing, 3-credits.	Jack Martin, Dean Instructional Serv.	● Cal Guide
	Audit	● College offers non-credit Energy Auditor Training Program, with Chancellor's office and California Energy Commission, and 6-session short course Basic Solar Power.		
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material
	Facilities Conservation	● College's energy committee developed a public energy education program, an energy monitoring system, and a technical audit.	Ronald Bryant Facilities Planning	● AED
	Environ- mental Education	● College offers courses in Drinking Water/Wastewater Technology.	Leland Mansuetti Program Development and Review	● EPCG ● Verified 4/2/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Solano Community College Suisun Valley Road Suisun City, CA 94585 707/864-7000	Conservation Solar Facilities Conservation	● Energy Conservation and Alternative Energies, 3-credit course offered through the Drafting Program. ● Passive Solar Design, 3-credit course offered through the Drafting Program. ● College strategies have included: lowering thermostats, reducing lighting, changing class schedules, and exploring alternate energy sources.	C. Thomas Hosley, Assist. Supt./V.P. C. Thomas Hosley Raymond E. Ogden, Director, Operations	● Cal Guide ● AED ● Verified 4/6/81

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Sonoma County Junior College Santa Rosa, CA 95401 707/527-4250	Faculty Development	College is grantee under the 1980 USDOE Faculty Development Education Program; Energy Education through Puppetry, 5-day course for 100 elementary school teachers, with stress on concepts of energy flow in the natural world, the origin of fossil fuels and the consumption rates of the fuels -- past, present, and future; taught through the medium of puppetry.	Jan Vanschuyver, Department of Child Development	USDOE Announce- ment

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Southwestern College 900 Otay Lakes Rd. Chula Vista, CA 92010 714/421-6700	Solar	- Utilization of Solar Energy, 18-contact hour course offered through the Technology Division, with focus on energy storage systems, heat and energy transfer, solar heating and cooling, and solar domestic hot water. - Solar Water Heating, non-credit two-day workshop designed to help participants build their own solar water heating system with kits prepared by a Solar material company; offered by Community Services.	Charles S. Devore Supt. - President Mary Wylie, Director of Community Services	- Verified 4/10/81 - NSEED '80

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Taft College 29 Emmons Park Dr. Taft, CA 93268 805/765-4191	Humanities	• Participant in Energy and The Way We Live Forums with topics Extracting Oil from Diatomaceous Earth, Effects of The Petroleum Industry on the Westside of Kern County, and Ethics of Energy: Dependence on Foreign Sources; Needs and Problems. • College offers non-credit short course The Energy Dilemma.	Donald Bandy Donald Zumbro, Dean Community Services	• EWLF material

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Ventura College 4667 Telegraph Rd. Ventura, CA 93003 805/642-3211	Solar	• Energy Efficient Buildings & Solar, course offered through the Construction Technology program. • Solar Lab, with focus on hydronic low and medium temperature systems for pools, domestic hot water and space heating, and air systems with rock and phase change storage. • Passive Solar Fundamentals course.	C. Dahl, Instructor	• Cal Guide
	Audit	• College offers non-credit Energy Auditor Training Program, with Chancellor's office and California Energy Commission.		
	Environmental Education	• College offers certificate program in Drinking Water/Wastewater Technology.		• EPCG • Verified 4/27/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Victor Valley College 18422 Bear Valley Road Victorville, CA 92392 714/245-4271	Solar	• Solar Water Heaters, course offered through the Adult Education program.	Charles A. Peterson Associate Dean Inst./Occup. Educ. Ext. 255	• Cal Guide • EPCG • Verified 4/3/81

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Vista College 2020 Milvia Street Berkeley, CA 94704 415/841-8431	Alternate	Energy Technologies AAS program with options in Solar or Conservation Technologies, specialty courses include Energy Options, 3-credits; Solar Energy I-III, 3-credits each; Energy Auditing, 2-credits; Shelter Design, 3-credits; Construction/Design/Maintenance of Solar Devices, 6-credits; Solar Electronics, Air Conditioning, and Resource Development.	Michael B. Mills, Program Planner Energy and Environmental Technologies	Cal Guide
	Alternate/ Conservation	- Additional energy courses include: - Wind Energy Systems I-III - House Tuning/Cutting Energy Costs - Greenhouse Design and Construction - Building Codes and Designs for Small Businesses and Homes - Home Weatherization - Alcohol Fuel Production - House Tuning/Cutting Utility Costs - Building Energy Conservation		- Feb-June 1980 Spring Registration Flyer 1/80 EEP - Verified 4/9/81
	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.		
	Environ- mental Education/ Resource Management	- College offers degree programs in Water Treatment and Wastewater Treatment technologies. - Related courses include: Principles of Air Pollution Control, Air Pollution Measurement, Maintenance of Monitoring Equipment, Meteorology, Introduction to Solid/Hazardous Waste Management, Toxicology, Biological Effects of Toxic Substances,		

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Vista College Berkeley, CA 94704 <u>CONTINUED</u>		Environmental Toxicology, Waste Management Regulations and Administration, Introduction to Environmental Health Technology, Laboratory Techniques, Industrial Hygiene, Operational Sanitation, OSHA, Environmental Planning, Land Use and Government Agencies, Environmental Impact Reports, Urban and Regional Planning, Environmental Law, Economics of Land Use, Research Methods in Planning and Management, Ecological Cities, and Public Transportation.		

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West Hills Community College 300 Cherry Lane Coalinga, CA 93210 209/935-0801	Humanities Energy General	• Participant in Energy and The Way We Live Forums. • College has offered various energy-related workshops, including forums on greenhouses, hydroponics, alcohol production, and energy alternatives.	Robert Gibson, ext. 212 Robert A. Annand Supt. - President	• EWLF material • 12/80 Cal. Guide • Verified 3/31/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
West Los Angeles College 4800 Freshman Dr. Culver City, CA 90230 213/836-7110	Audit Conservation	● College offers non-credit Energy Auditor Training Program, with Chancellor's office and California Energy Commission. ● College offers Energy Conservation for the Homeowner and Industry through the Community Services department.	Marty Ross	● Cal Guide

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
West Valley College 14000 Fruitvale Avenue Saratoga, CA 95070 408/867-2200	Energy General Solar	• College offers two courses: - Energy Technology, 3-credit - Energy Audit Technology, 3-credit • Introduction to Solar Energy, 3-credit course offered through the Engineering department, with focus on appropriate technology, conservation, heat and energy transfer, energy storage systems, solar marketing/economic analysis, passive solar systems, and solar heating and cooling.	Melvin F. Tuscher, President John Feemster 408/925-3095	• 12/80 Cal. Guide • NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
West Valley Joint Community College District 44 E. Latimer Ave. Campbell, CA 95008 408/867-2200	Conservation	● College developed Gasoline Conservation Awareness Program to train instructors for other programs across the state, provide training in locations where opportunities do not exist, offer training to the public, and determine the feasibility of organizing a statewide effort. Program content includes: travel planning, economic driving hints, and fuel-saver maintenance procedures. Program was funded by the California Energy Extension Service. ● College's interest in local community conservation practices promoted the creation of a governmental steering committee on energy conservation.	Gerald V. Sharp, Dir., Ed. Devel. 408/866-6499	● NCRD, PE ● AED

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Yosemite Community College District College Avenue Modesto, CA 95352 209/526-2000	Energy Information Center	College District developed a Community Energy Information and Education Center with grant from the California Energy Commission. Pilot program served business and residential sectors in the community. Activities include: served as model for other colleges and agencies for setting up solar heating systems, provided outreach to encourage linkages between commercial/business/private consumers, and offered performance details on local solar hardware.	William Wilson, ext. 311	PE, NCRD

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Yuba College 2088 N. Beale Rd. Marysville, CA 95901	Environ- mental Education	● College offers credit course Ecology 10-The Environment, with stress on the impact of energy production and use on the environment.	David Hummel, Instructor	● 6/30/80 Letter
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Daniel G. Walker Supt.-President	● EWLF material
	Solar	● College has offered workshops on solar design and renovating old houses for solar; topics include domestic hot water, passive systems, and weatherization.		● 12/80 Cal. Guide
	Conservation	● College offers non-credit, 2-part seminar on Energy Conservation, with local power company and other businesses.		

COLORADO



White and Lavender Columbine

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Aims Community College Greeley, CO 80632 303/353-8008	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Introduction to the Principles of Solar Energy, 3-credit course offered through the Science, Mathematics department; topics include alternative energy sources, solar components, solar home construction, and solar systems design. ● Solar Air Heater, 1-credit course offered through evening/weekend program; topics include alternative energy sources, appropriate technology, solar components, introduction to solar energy, materials, solar heating, and solar systems installation/maintenance. ● Solar Water Collector, 1-credit course offered through evening/weekend program; topics include alternative energy sources, solar domestic hot water, solar components and appropriate technology. ● Solar System Sizing, 3-credit course offered through the Science, Mathematics department; topics include calculating heat loss, heat loads, and solar system sizing.	Jerry Kiefer Frank Compestine ext. 252 Art Giesick, ext. 248 Art Giesick, ext. 248 Frank Compestine, ext. 252	● EWLF material ● NSEED '80 ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Arapahoe Community College 5900 S. Santa Fe Drive Littleton, CO 80120 303/794-1550	Solar Conservation	• Solar-related classes include: Active Solar Systems, 3-credit course with focus on solar space heating, domestic water heating systems, solar radiation factors, conversion, transporting, storing, and utilization. • Passive Solar Energy, 3-credit course with focus on retrofit options, structural design and cost analysis versus other heating methods. • College offers one-year certificate program, Energy Conservation Technology. Courses include: -Energy Sources, 3-credit, with focus on definitions and terminology, available energy sources, utilization and rate of consumption. -Residential Energy Audits, 3-credit, with focus on introduction to performing energy audits, including economic analysis and heat transfer calculations; also includes energy conservation opportunities. -Commercial Building Systems, 3-credit, with focus on mechanical and electrical systems in commercial buildings from an energy conservation perspective; includes operation and maintenance. -Practical Conservation Measures, 3-credit, with focus on methods and materials for insulation, weatherization, heating and cooling system maintenance; lighting; window application; and automatic control devices. Cost justification and	Gene Amorso, ext. 404	• NSEED'80 • 2/80 Response Letter • Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Arapahoe Community College Littleton, CO 80120		effectiveness and tax credits are emphasized. -Energy Control and Measurement, 2-credit, with focus on fundamental energy control and measurement; indicating, recording and integrating instruments for measurement of temperature, fluid flow, pressure, power and energy. -Long-Term Energy Planning, 3-credit, with focus on long-term management of solutions for energy conservation for business and industry, energy legislation, return on investments, and potential of new technologies.		
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Colorado Mountain College East Campus Leadville, CO 80461 303/486-2015	Environ- mental	● AAS degree in Environmental Protection Technology, water and air pollution detection and control, waste water treatment plant operator, surveying crew member, soils laboratory technician are some of related career fields.	Robert Metzler	● 12/79 Survey Response ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Colorado Mountain College West Campus Glenwood Springs, CO 81601 303/945-7481	Appropriate Technology Solar Energy General Coal	• College is establishing a Center for Appropriate Technology and Energy Self-Sufficiency. • Constructed 1 passive and 2 active solar buildings on campus. • College offers Solar Technology (Solar Retrofit) certificate program; courses include: -Solar Architecture, 5-credit course offered through the General Studies department, with focus on alternative energy sources, solar heating, solar home construction, systems design, and installation/maintenance. -Solar Energy, 3-credit course offered through the General Studies department, with stress on conservation and solar systems design. -Solar Heating Residential Buildings, 2-credit course offered through the General Studies department, with focus on alternative energy sources, energy storage systems, passive solar systems, solar home construction, and solar systems design. • Plan to create a mobile energy training lab as an outreach mechanism. • Planning substantial energy course/program development to satisfy burgeoning mining, refining activities scheduled for area--coal and shale. Courses in oil shale technology currently offered.	Gene Minor Robert F. Metzler, Director, Curriculum and Educational Services	• 3/10/80 telephone • 4/81 letter • NSEED'80

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Colorado Mountain College West Campus Glenwood Springs, CO 81601		• Offers a two-year AAS degree in Surface and Underground mining; also offers 10-month course, mine electrician certificate. Related AAS degree and certificate offered in Electrical-Electronics Technology.		• 1/79 Short Report • 1/79 ERTA, TERC
	General Energy Education	• Energy Resources and Their Impact on the People of Rural Western Colorado, 14-days, 30 teacher-participants.	Larry Pulero and I. Louis Trapani, Dept. of Science & Mathematics	• DOE EDP Announcement
	Humanities	• Participant in Energy and The Way We Live Forums; offered for credit.	I. Louis Trapani	• EWLF material
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Colorado North- western Community College Rangely, CO 81648 303/675-2261	Petroleum	● College offers courses in exploration, production, and related fields of the petroleum industry. Degree options include Geological Drilling Technician & Production Technician. AAS Degree. ● Hydrogen Sulfide Safety Course, on-site training of the safety operations and practices necessary for workers to successfully move and act in the hostile environment of hydrogen sulfide gas and other toxic gases; ½ semester hour credit. ● Emergency medical training and first aid. Given on site. Offered for credit. ● Blow-out prevention safety. On-site training. Offered for credit.	James H. Bos, President	
775 Yampa Craig, CO 81648 303/824-4078	Solar	● Course deals directly with the skills necessary in areas of carpentry, electrical systems, plumbing and masonry. Students are given fieldwork. Emphasis on solar energy. ● Solar Greenhouses, 5-contact hour course offered through the evening program, with focus on solar components, energy storage systems, and greenhouse techniques.		● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material ● Verified 4/6/81

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Community College of Denver Red Rocks Campus 12600 W. 6th Ave. Golden, CO 80401 303/988-6160	Solar	• Solar Energy-Installation and Maintenance, certificate and AA degree program offered through the Building and Machine Trades department. Programs began in 1977. As of Spring 1981, approximately 1100 students enrolled in the programs. Program courses included: Greenhouse Design, Advanced Passive Solar Systems,; Agricultural Applications of Renewable Energy Resources; Alternative Backup Systems for Solar Energy; Basic Sheet Metal for Solar Energy; Basic Solar Controls; Basic Solar Systems; Blueprint Reading for Construction Trades; Introduction to Photovoltaics; Introduction to Wind Energy; Masonry Techniques for Solar Energy; Orientation of Tools, Basic Plumbing, and Drawing; Solar Engineering Technology; Solar Lab; Solar Panel Installations; Solar System Design and Layout; and Solar System Maintenance. College offers many other solar courses in the programs. • Passive Solar Energy Drafting and Design, AAS degree program begun in fall 1980. • College also offers community workshops on Adapting to the Energy Crisis, Passive Solar Energy, Active Solar Energy, and Energy Conservation	Craig Hilton Robert Hilton 303/988-6161	• NSEED'80
	Humanities	• Participant in Energy and The Way We Live Forums.	Craig Hilton	• 7/28/80 Telephone Interview
	Environmental Education	• College offers program in Environmental Studies.		• EWLF material • EPCG • Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northeastern Junior College Sterling, CO 80751 303/522-6600	Alcohol	College is conducting an alcohol experiment project to determine the effects of alcohol-based fuels on electricially ignited and diesel loaded engines.	Garnie Johnson, Alcohol Fuels Project Director	1/80 Response Letter - Verified 4/6/81

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Otero Junior College La Junta, CO 81050 303/384-4443	Solar	• Solar Heating option offered in AAS Architectural Technology program, part of Construction/Manufacturing departments; focus is on energy storage systems, solar marketing/economic analysis, solar home construction, solar systems design, systems installation/maintenance, domestic hot water, and solar heating	E.W. Nilson	• NSEED'80

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Pikes Peak Community College 5675 S. Academy Boulevard Colorado Springs, CO 60906 303/576-7711	Solar	● Science of Solar Energy, 3-lecture credits plus 1 lab credit course offered through the Math/Science departments, with focus on centralized solar power systems, energy storage systems, heat and energy transfer, photovoltaics and solar cells, and solar heating. ● Introduction to Solar Technology and Applications of Solar Technology, credit courses offered through the Agricultural Technology program.	Thomas Damon, ext. 347 ext. 347	● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums.	Bill Wysong, ext. 202 Dale Traylor, ext. 494	● EWLF material
	Environ- mental Education	● Environmental Science I, II, III (3-credits each) including energy, resources, pollution, and environmental hazards.	Thomas Damon	● Verified 4/7/81
	Energy General	● General Physics (4-credits) is built around energy as a central theme including mechanical, electrical, and nuclear concepts.	Peter Rooha, ext. 354	

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Trinidad State Junior College 600 Prospect St. Trinidad, CO 81082 303/846-5531	Solar	● Building Trades Shop, course in House Construction certificate program, with focus on solar energy education and solar systems installation-residential. ● Solar Home Construction, 3-credit course offered through the Building Trades department, with focus on solar components, energy storage systems, solar domestic hot water, solar heating, solar home construction, and solar systems installation/maintenance. ● Building Trades program involves the construction of passive solar homes; presently building an active solar home with the aid of a demonstration grant from USDHUD.	Nick Furia Roger F. Brunelli 303/846-5571	● NSEED'80
	Coal	● College offers AA degree program in Coal Mining Technology, including mine safety and health training. Related to this effort, college offers Heavy Equipment Mechanic program to train mechanics for surface mining and energy exploration equipment.	Leonard A. Hawley Dean of Occupational Education	● 2/19/80 Response Letter and 1/79 ERTA, TERC
	Energy General	● Graduates of Electronics-Computer Maintenance program have been employed by energy exploration companies that increasingly rely on computers for their work. ● College is considering offering an Energy Laboratory Technician program to train people for coal and energy related analysis work.		
	Conservation	● Soil Conservation Technology program conducted in cooperation with the		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Trinidad State Junior College Trinidad, CO 81082	Environ- mental Education	State Soil Conservation Service, emphasis training in reclamation activities. ● College offers degree program in Environmental Engineering Technology.		● EPCG
<u>CONTINUED</u>				



Mountain Laurel

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Asnuntuck Community College Enfield, CT 06082 203/745-1603	Energy General Humanities	● Awareness Seminars (2 days) ● Participant in Energy and The Way We Live Forums	Daniel McLaughlin, President Jo-Ann Bellantuono	● 1/79 ERTA, TERC ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Greater Hartford Community College 61 Woodland Street Hartford, CT 06105 203/549-4200	Energy General	● <u>Perspectives on Energy</u>, 3-credit course provides knowledge of principles underlying production of energy from different sources; studies energy consumption and supply patterns for U.S. and the World and examines the implications of these patterns; examines the environmental and social effects on changes in energy use and production and any possible shifts in sources of energy; and studies various factors which should determine comprehensive energy policy and the impact of the implementation of the energy policy on society.	Rama K. Chaturvedi, Department of Natural Sciences	● 2/80 Response Letter
	Humanities	● Participant in Energy and The Way We Live Forums.	Rama K. Chaturvedi	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Hartford State Technical College 401 Flatbush Ave. Hartford, CT 06106 203/527-4111	Nuclear Solar	● College offers an AA degree in Nuclear Technology. ● Seminar in Solar Energy, 3-credit course offered through the Energy Engineering Technology department.	R.L. Boyer	● 1/79 ERTA, TERC ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Housatonic Community College Bridgeport, CT 06608 203/579-6400	Faculty Development	College was grantee under the 1980 USDOE Faculty Development Education Program; Energy Awareness Project was a 4-day workshop for 100 elementary school teachers in the Greater Bridgeport area. Topics covered included survey of energy resources, consumerism, conservation and management, auditing, solar energy, and energy curricula.	John Williamson, Dept. of Mathematics 203/579-6414	DOE Announce- ment

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Manchester Community College Manchester, CT 203/646-4900	Humanities Energy General	● Participant in Energy and The Way We Live Forums; offered for credit. ● College has offered courses in energy conservation and ecology, and has presented a solar energy seminar.	Charles A. Plese	● EWLF material ● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mattatuck Community College Waterbury, CT 06708 203/757-9661	Humanities Management/ Ecology Solar Energy	● Participant in Energy and The Way We Live Forums; offered for credit. ● College has offered energy management and ecology courses. ● Non-credit solar energy course offered through the Division of Continuing Education. Offered in fall 1980 and spring 1981 semesters.	Natalie Kass Larry Smotroff	● EWLF material ● 1/79 ERTA, TERC ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Middlesex Community College 100 Training Hill Road Middletown, CT 06457 203/347-7411	Environ- mental	• The AAS degree Environmental Science Program emphasizes energy conservation and alternative energy sources.	Eduardo J. Marti, Dean of Faculty	• 1/80 Response Letter
	Facilities Conservation	• In-house conservation measures include: - block scheduling to allow students to attend on a two-day a week basis - evening program will allow students to come to campus once a week for 50% of the classes and two days a week for the other 50% - developing a car-pool list - received a commitment from the city to institute a bus route to the campus.		
	Humanities	• Participant in Energy and The Way We Live Forums.	Richard Patrick 203/344-4043 Edward J. Marti	• EWLF material • Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwestern Connecticut Community College Park Place East Winsted, CT 06098 203/379-8543	Environ- mental Education Conservation Alternate/ General Energy	● College offers degree program in Environmental Studies, with focus on environmental science/health. ● Classes and Forums: - with a major oil company conducted two programs for area plant owners on energy conservation - conducted a day-long International Energy Conference in cooperation with state and national energy departments that focused on alternate energy technology - three separate lecture-demonstrations on chain saw operation, safety and wood cutting - a series on woodstoves - selection, installation, and safe operation - a lecture on home heating by coal - a 16-hour series on domestic solar heating - a demonstration program on domestic energy economy - a ten-hour series on the political and economic implications of the energy situation - a ten-hour series on windpower, methane conversion, and water power with trips to facilities using these alternate power sources - a series on using the bicycle as an alternate means of transportation	Jack F. Peretti, Dean of Community Services	● EPCG ● 1/80 Response Letter ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwestern Connecticut Community College Winsted, CT 06098 <u>CONTINUED</u>	Facilities Conservation	- a workshop on increasing the efficiency of automobile performance - a lecture demonstration on simple energy saving retrofitting for the homeowner ● 1981 Audit Education Spring courses include: - Coal and Coal Stoves - Improving Your Car's Mileage - Overview of Energy Options - Solar for Beginners - Solar Greenhouses ● In the 1979 fall semester the college offered 30 courses at 7 satellite sites and served 880 students in this manner. ● Initiated a car pool system; special sign-up sessions were conducted during the first week of class and special effort was taken to bring students together who were commuting from the same region. ● Exploring the possibility of establishing a shuttle bus service between the college and Torrington, ten miles away. ● Energy use Reduction activities in the facilities included: - in the spring of 1979 the college, through CETA, hired an energy coordinator and an assistant. The	Dean Jack Perretti, ext. 226 Dean Raymond Atcheson, ext. 210	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwestern Connecticut Community College Winsted, CT 06098 <u>CONTINUED</u>		coordinator conducted an energy audit of the college facilities; presented a program on saving energy in the classroom to the faculty; posted signs in all rooms and offices reminding people to conserve heat and electricity; worked extensively on car pooling arrangements and publicity; and recommended appropriate corrective measures in case of energy waste. ● Custodial staff, with the help of some members of the professional staff, installed insulation in the attic areas of the main building and in other buildings lacking insulation; built plastic storm windows for rooms that lost heat through extensive drafts; and installed styrofoam insulation units in windows that had extreme draft problems. ● College replaced all existing incandescent lighting fixtures with fluorescent fixtures which were salvaged from another state building and used them to replace old doors at the college; and salvaged and recycled fiberglass insulation from other facility and used it to insulate the attic in the Administration Building.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Quinebaug Valley Community College Danielson, CT 06239 203/774-1130	Energy General	● College offers course in energy awareness.	Robert E. Miller, President	● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Waterbury State Technical College Waterbury, CT 06708 203/756-7035	Humanities Conservation	● Participant in Energy and The Way We Live Forums. ● College offers seminars on energy conservation and audits for area high school students.	Charles H. Ekstrom, President John Vaitkus Arthur Melnicsak	● EWLf material ● Verified 3/30/81.



Peach Blossom

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Delaware Tech. and Community College Southern Campus Georgetown, DE 19947 302/856-5383, 5386	Wind	● Conducted Cycloturbine project to study the feasibility of using wind energy to heat hot water or alternately to generate electricity, with funds from the U.S. Department of Energy, Appropriate Technology Office. System is vertical axis wind turbine.	Mr. Penn Guenvenur, Electronics Dept. 302/856-5266	● 2/80 Response Letter
	Humanities	● Participant in Energy and The Way We Live Forums.	Joseph Fantl	● EWLF material
	Environ- mental Education	● College offers program in Drinking Water/Wastewater Technology.		● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Delaware Tech. and Community College Terry Campus 1832 N. Dupont Parkway Dover, DE 19901 302/678-4621	Humanities	● Participant in Energy and The Way We Live Forums.	Earl Roberts Joe Buchanan	● EWLF material
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.		● USDOE, OCA Fact Sheet
	Solar	● Energy Education and Awareness, Certificate program offered through the Continuing Education and Technical Engineering departments. Special courses include: - Alternative Forms of Energy (3-credits) - Building Solar Equipment, 3-credits with focus on passive solar systems, solar domestic hot water, and solar heating. - Solar Energy Clinic, 3-contact hour workshop with focus on passive solar systems, solar domestic hot water, and solar heating.	Earl Roberts Sam Guccione	● NSEED'80
	Conservation	● Through Continuing Education Department, sequences of short, non-credit courses are offered in: Weatherstripping, caulking, insulation, wood stoves, hands-on clinics, and Technical Assistance.	Louis H. Jara, ext. 5688	● Verified 3/30/81



Orange Blossom

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Brevard Community College 1519 Clear Lake Rd Cocoa, FL 32922 305/632-1111	Humanities	● Participant in Energy and The Way We Live Forums.	Robert Anderson	● EWLF material
	Alcohol	● Grantee in 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops offered to businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Maxwell King, Pres. Phillip Bliss 305/254-0305, ext. 204	● USDOE, OCA Announcement
	Solar	● AAS degree program Solar Energy Technology with emphasis on installation, design, sizing, research and testing of solar systems and components. Part of a national consortium effort funded by the National Science Foundation. The consortium center is Navarro College, Texas. Final product of this demonstration will be a complete curriculum package, including instructional materials, technical and support courses, staffing requirements, bibliographies, laboratory materials, instructional costs, and institutional requirements. The curriculum is built around 10 core courses. Other participating colleges are: Cerro Coso Community College, California; Dallas County Community College, North Lake Campus, Texas; and Malaspina College, British Columbia, Canada.	Norman Abell 305/269-5664, ext. 159	● 1/80 Response letter
	Conservation Fac. Develop	● Grantee in 1980 USDOE Faculty Development Projects in Energy Education; offered 10-day workshop for high school teachers to develop energy-related classroom materials.	Barton Lipofsky, Science and Math.	● USDOE Announcement

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Brevard Community College	Conservation	• College presented community seminars on home energy issues.	Robert Anderson	• 1/80 Response letter
<u>CONTINUED</u>	Facilities Conservation	• College administers student car pool program to conserve gasoline. • New campus building energy use is controlled by a computer. • In-house conservation measures in progress	Michael Merchant Leon Sterns Charles Payne	
	Solar	• Special Systems; 5-credit course offered through the Air Conditioning and Refrigeration department, with focus on centralized solar power systems, heat and energy transfer, solar system design, and solar systems installation/maintenance.	Andy Knight, ext. 54	• NSEED'80
	Environmental Education	• College offers degree program in Environmental Engineering Technology.		• EPCG

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Broward Community College Central Campus 3501 SW Davie Rd. Ft. Lauderdale, FL 33314 305/761-7400	Humanities	● Participant in Energy and The Way We Live Forums which included movies, booths with representatives from all aspects of energy, displays, public school students poster contest, science fair project displays, and various speakers and workshops.	Beverly Gross, Community Services	● 12/79 Survey Response ● EWLF material
	Facilities Conservation	● College has installed a computerized energy management system for its North Campus utility plant, increasing efficiency and reducing labor and maintenance costs.	Jay Carr Physical Plant Director	● AED
	Environmental Education	● College offers degree program in Pesticides and Toxicology.		● EPCC ● Verified 4/6/81

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Central Florida Community College P.O. Box 1388 Ocala, FL 32670 904/237-2111	Nuclear Humanities	● AAS degree in Nuclear Technology, including 11 core courses. ● Participant in Energy and The Way We Live Forums; offered for credit.	Robert F. Ritterhoff Dean, Instructional Services Wally Hamrick	● 1979 Hamilton Report ● EWLF material

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Chipola Junior College Marianna, FL 32446 904/526-2761	Conservation	● College is working with 5 county school districts to develop energy conservation/management plans for all county schools.	Marian Baley	● 1/3/80 Telephone
	Facilities Conservation	● Established an energy committee to be watchful of energy use and to develop special energy projects. College funded to write an Energy Conservation Management Plan.	Dr. Hugh Balbori	● 10/79 NCRD Survey
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material

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Daytona Beach Community College P.O. Box 1111 Daytona Beach, FL 32015 904/255-8131	Facilities Conservation	● Energy Savings techniques employed to reduce consumption by 35% - reduced hallway lighting by 50% and other campus lighting lowered - steam cleaned all air-handling coils - hallway register dampers closed - chillers shut down nights and weekends - a solenoid valve was installed in waterline to a water-cooled air compressor - existing thermostats serviced and activated results led to \$10,000 1st place NACUBO award, 1979	Charles Maybeck, Director for Energy Management	● 1/3/80 ● 1/4/80 ● NACUBO ● <u>Florida</u> <u>Voc.</u> <u>Journal</u>, November 1979
	Alternatives	● Energy Alternatives, credit course offered through the Science department.	Raymond Moore, Instructor	● 7/80 Telephon Survey
	Conservation	● Energy Conservation Applications-Certificate Program, for students who are graduates of regular HVAC curriculum. Uses college as open laboratory; semester-long program. ● College sponsored a national energy conference for automotive educators, October 12-18, 1980; in cooperation with U.S. Department of Energy, Ashland Oil Inc., and the Petersen Publishing Company, and is sponsoring the second annual conference in October 1981.	Charles J. Maybeck	● 6/80 News- release ● Verified 4/2/81
	Awareness	● College is developing energy awareness modules for use in Academic curricula, building trades, and home economics.	Charles H. Polk, President	

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Edison Community College College Parkway Fort Myers, FL 33901 813/481-2121	Solar	Alternative Energy Sources, 3-credit course offered through the Basic Science department, with focus on alternative energy. Students in class have designed, built, and installed a wind-powered generator that produces light needed by the science building. They have also produced a solar water heating system, a solar distillery, and an insulated bead wall.	Lee Werst, ext. 258	NSEED'80
	Environ- mental Education	College offers certificate program in Drinking Water/Wastewater Technology.	James L. Newton, Science Div. Chairman	AED
	Solar	Students have designed, built and installed a wind-power generator that produces power for lighting the science building, designed and installed photovoltaic panels to supply the needed electricity to power a classroom, designed and built a solar domestic water heater for less than \$100,000, a solar still, solar oven and an insulated head wall.		- EPCG - Verified 4/2/81

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Florida Junior College at Jacksonville Downtown Campus 210 N. Main Street Jacksonville, FL 32202 904/358-1812	Facilities Conservation	● Energy Conservation Committee has established individual campus committees to police each campus and disseminate ideas and information to the parent committee. Committee responsible for formulating a master plan for the college's energy future. It conducted a major, college-wide survey to determine employee attitude to a 4-day week and other energy issues. - On May 4, 1981 college implemented 4-day work week to study effects of shortened schedule on energy consumption, students and student learning, educational processes, and employees and services. Test period will be completed on August 21, 1981. ● Created a newsletter called "Watts New?" which gives tips on energy conservation at home, work, and with automobiles. ● Have implemented a program of load shedding with the air handling units by programming the air handlers to shut down in tandem when the energy usage reaches a predetermined point. ● Thermostats on hot water heaters have been cut back to 105 degrees and excess hot water faucets in restrooms have been shut off. ● The F.J.C. Foundation has established an award fund wherein a college employee could receive a monetary award for the best energy conservation idea.	James R. Myers, Ph.D. Dean of Occupational Education	● 4/80 Survey Response

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Florida Junior College at Jacksonville Downtown Campus Jacksonville, FL 32202 <u>CONTINUED</u>		• Excess florescent lighting has been disconnected and empty sockets have been replaced with "phantom bulbs." • Experimenting with various outside window films, blinds, etc., to establish the most efficient sun-preventive window covering. Insulated curtains have been installed in offices located at extreme sun exposure points. • At the Downtown Campus, a "coupon sharing" box has been utilized. The coupon box allows employees to get the best buys at one place. • The College has consolidated meetings. Most college-wide meetings are held at District Offices or the Downtown Campus, which are the two central locations. • Electrical, natural gas and water meters are monitored and monthly readings and data are compiled and sent to District Director of Administration Services for evaluation. • The College is investigating the incorporation of energy efficient ratios (EER) into purchasing procedures for electrical appliances and equipment. • Car-pooling and bus riding is encouraged and "flex schedules" used to accommodate car-poolers and bus riders.		

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Florida Junior College at Jacksonville Downtown Campus Jacksonville, FL 32202	Solar	- On two campuses four-day summer (1980) session was implemented. - Free, 6-week course Everything You've Always Wanted to Know about Solar Energy and More, offered by Community Instructional Services program, using private energy consultant as Instructor (Curriculum available-90 pages)	Peter B. Wright 904/757-6241	5/30/81 FJC-J News Release - NSEED'80
<u>CONTINUED</u>	Humanities	Participant in Energy and The Way We Live Forums.	Marian Tally-Brown	EWLF material
	General	Offers as unit in Unified Science, Energy, aimed primarily at non-science major and is self-paced, interdisciplinary, guided study approach; concentrates on concepts of science rather than on fields of science; topics include: wood stove, conservation, solar, heat transfer, fission/fusion, geothermal, wind, water, and energy choices.	Phillip Petersen, Instructor	7/80 Letter
	Conservation	Earth Awareness, a two-day program of conservation/ecology, with speakers, exhibitions, films and music.	Lee Hunter 904/387-8101	3/80 FJC-J News Release
	Alcohol	College is developing an alcohol fuels curriculum with support from the State Department of Education. Curriculum will include: distillery technology, distillery materials handling technology, distillery repair and maintenance technology, and internal combustion engine conversion technology. Program will be completed in cooperation with the Ethylene Corporation of Jacksonville.	James Myers, Dean of Occupational Education	- Spotlight, Summer 1980 - Verified 4/2/81

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Flordia Keys Community College Key West, FL 33040 305/296-9081	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	William A. Seeker, President	● EWLF material
	Facilities Conservation	● College has developed planning guidelines to comply with federal energy conservation directives and to assure efficient energy use on campus. Elements of the plan include: - create energy task force - establish an energy conservation suggestion program - complete energy audit for each building - include energy conservation subjects in each curriculum - experiment with conserving energy in each campus building - reduce decorative lighting - reduce weekend use of buildings - evaluate day, night, and weekend use of buildings to determine most efficient scheduling program - schedule custodial work during day-time when possible - reduce highest demand usage through a variety of techniques - establish an equipment inspection schedule - encourage car pooling - conduct workshops on driving techniques.	William D. Ceely	● 3/80 College Report
	Alternate	● College offers non-credit course in alternate energy sources, with instruction on how to apply conservation techniques and "how to make your own power."	Beth B. Smith Community Services Director	● AED

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Florida Keys Community College Key West, FL 33040	Environ- mental Education	College offers certificate program in Drinking Water/Wastewater Technology.	William A. Seeker, President	EPCG
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Gulf Coast Community College 5230 West Highway 98 Panama City, FL 32401 904/769-1551	Facilities Conservation	● Has an Energy Conservation Committee and a sub-committee to study the feasibility of implementing a four-day work week as a measure to conserve energy; installing magnetic tape meters in each building to monitor kilowatt usage; monitoring each room with a light meter to determine where less wattage could be used; installing weather stripping on all doors; recalibrating all thermostats to 78 degrees; and educating all employees about energy conservation by publishing energy conservation brochures. Gulf Power Company had representatives at the committee meetings. Taking steps to submit an application to the Governor's Energy Office under the NECPA Program for seven buildings (to upgrade the existing heating and air conditioning systems to save kilowatt usage).	Lewis E. Baber, Associate Dean of Instruction for Career Studies	● 1/80 Response Letter
	Humanities	● Participant in Energy and The Way We Live Forums.	Pam Hooper	● EWLF material
	Solar	● Solar Energy/Solar Systems, special focus in Air Conditioning, Heating, and Refrigeration AA degree curriculum. - Solar Energy, 3-credit course with emphasis on solar components and solar home construction - Solar Systems, 3-credit course with emphasis on heat and energy transfer, solar marketing/economic analysis, passive solar systems, solar systems design, and solar heating and cooling.	Robert C. Jones	● NSEED'80 ● Verified 4/3/81

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Hillsborough Community College Tampa, FL 33622 813/879-7222	Energy General Environ- mental Education Conservation	● College offers 3-semester hour credit course: Man & Energy. ● College offers certificate and degree programs in Drinking Water/Wastewater Treatment Technology. ● Through Continuing Education department at Ybor City Campus: - Workshops for women on energy conservation in the home, offered in cooperation with Tampa Electric Company; - Radio series on home energy conservation with emphasis on major appliances, in cooperation with Tampa Electric Company; - Workshop for displaced homemakers (under Project Eve) entitled, "Cutting Your Electric Bills in Half."	John Taylor John Bouseman Sybil Barnes	● EPCG ● Verified 3/30/81

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Indian River Community College Fort Pierce, FL 33450 305/464-2000	Environ- mental Education	College offers certificate and degree programs in Drinking water/Wastewater Treatment Technology.	Herman A. Heise, President	EPCG

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Manatee Junior College Bradenton, FL 33506 813/755-1511	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers degree program in Environmental Engineering Technology.	Doug Dennison ext. 204	● EWLF material ● EPCG ● Verified 3/30/81

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Miami-Dade Community College North Campus 11380 NW 27th Ave. Miami, FL 33167 305/685-4206	Solar	● Air Conditioning Engineering Technology degree program includes solar specialization. Courses are: - Solar Energy Fundamentals, 3-credit course with focus on conservation, solar home construction, systems design, installation/maintenance, and solar swimming pool heating. - Solar Energy Systems, Commercial, 3-credit course with focus on solar marketing/economic analysis, passive solar systems, plumbing techniques, and solar components. - Solar Systems, Residential, 3-credit course with focus on conservation, systems testing/evaluation, and solar domestic hot water.	George Cleland	
	Conservation	● College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.		● CORD material
New World Center Campus 305/577-6876	Alternatives Information Center	● Alternative Energy Center established at the college with demonstration solar, conservation, and wind programs; serves as a community energy information center. ● College offers certificate programs in Wastewater Treatment and Potable Water Technology, and degree programs in Potable Water/Wastewater Technology and Environmental Studies	Tom McGuirl 305/577-6876	● 1/79 Hamilton Report ● EPCG

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Miami-Dade Community College South Campus 11011 S.W. 104th Street Miami, FL 33176 305/596-1345	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Tim McGuirl 305/596-1018	● EWLF material ● Verified 3/31/81
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Florida Junior College Madison, FL 32340 904/973-2288	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers a certificate program in Wastewater Treatment.	John E. Sands, ext. 23	● EWLF material ● EPCG

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Palm Beach Junior College 4200 Congress Ave. Lake Worth, FL 33461 305/965-8000	Alcohol (Aquahol)	College is conducting a research and demonstration program to produce fuel from cattails. With USDOE funding, the college is working with Lantana Boatyard, Inc., which is developing an aquatic harvester and the Gressinger Farms where cattails are being raised. Golden Gate Energy Center in California and Mayland Technical Institute in Spruce Pine, North Carolina, are involved as cooperative institutions in this project. Future programming includes the creation of a curriculum to train technicians, and a technical assistance capacity for international outreach.	James R. Branningan, Development Director	8/26/80 Response Letter
	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.	Fred Holling	EWLF material
	Environmental Education	College offers degree program in Drinking Water/Wastewater Treatment Technology.		- EPCG - Verified 3/31/81

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Pasco-Hernando Community College Dade City, FL 33525 904/567-6701	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers degree program in Pollution Control Technology courses include: Environmental Science, Energy Systems and Natural Resources, Hydrology, Waste Disposal, Solid, Liquid and Radioactive.	Marjorie A. Sugg	● EWLF material ● EPCG ● Verified 4/4/81

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Pensacola Junior College 1000 College Boulevard Pensacola, FL 32504 904/476-5410	Facilities Conservation	● College has established an Energy Conservation Task Force, responsible for advising on ways to conserve energy appropriate to the college, educate college employees, and solicit cooperation of college employees in application of Task Force conservation plan. Specific college activities include: implementation of electric generator grid system for electric arc welding training, reduction of foot candle illumination, and placing main campus complex under one central heating and cooling system.	Ron Berthelot, Industrial Tech. Department	● 2/12/80 Letter
	Solar	● College is offering Solar Technical Training, certificate and AAS degree curriculum, as part of the Air Conditioning, Heating, and Refrigeration Program; focus is placed on the application, design, and installation, and servicing of solar energy devices and equipment. ● College offers Introduction to Solar Energy, non-credit survey course for the general public; explores historical developments, passive water systems, design, and applications of solar systems for residential and commercial use.		
	Environ- mental Education	● College offers a certificate program in Drinking Water/Wastewater Treatment Technology.		● EPCG

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Pinellas Voc. Technical Inst. 6100-154 Avenue North Clearwater, FL 33520 813/531-3531	Environ- mental Education Solar	● College offers certificate program in Drinking Water/Wastewater Treatment Technology. ● Air Conditioning, Ventilation, Heating and Refrigeration with Solar Energy course integrated into the program. ● Solar energy certificate given to evening extension students who complete the 18-week course. The course includes theory and "hands on" training in building solar collectors (both air and water). Installation and servicing techniques as well as troubleshooting systems are presented. Energy awareness and conservation is presented as part of the curriculum.	Mary Jane Davis, Director E. Morgan or C. Sprecher, ext. 256 v	● EPCG ● Verified 4/6/81

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Polk Community College 999 Avenue H, N.E. Winter Haven, FL 33880 813/294-7771	Environ- mental Education	College offers certificate program in Drinking Water/Wastewater Treatment Technology.	Frederick T. Lenfestey President	EPCG

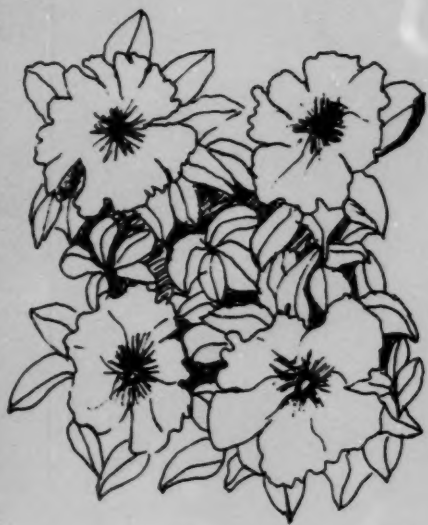
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
St. Petersburg Junior College St. Petersburg, FL 33733 813/546-0021	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums; offered for credit. ● College strategies to reduce energy usage include: - compliance with federal and state conservation guidelines - organized and used a Citizens Energy Conservation Advisory Committee to review college efforts and to recommend implementation of other actions - installed locked covers on thermostats - construction in progress on renovation/replacement of all HVAC equipment in 10 buildings at the St. Petersburg Campus - installed duct return air in place of plenum return in six buildings at the Tarpon Springs Center.	Marion Menzel Wendell R. Sheets, VP Planning, Research, and Instructional Service W.R. Sheets	● EWLFF material ● 2/80 Response Letter ● Verified 3/19/81

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Santa Fe Community College P.O. Box 1530 Gainesville, FL 32601 904/377-5161	Solar	● Principles of Solar Heat, 3-credit course offered through the Industrial Education department, with focus on appropriate technology, conservation, heat and energy transfer, energy storage systems, solar marketing/economic analysis, solar home construction, solar systems design, and solar heating and cooling.	C.D. Geiger, Director Industrial Education	● EEP, 1/80 and NSEED '80
	Alternatives	● Energy-Alachua County and You, course offered through Community Instructional Services, Alachua County School, for citizens, with stress on renewable energy technologies, including the history, advantages, disadvantages, accessibility, and economics of several sources.	Dr. John Zemlo, Director, Alachua County Schools 919 East University Avenue Gainesville, FL 32601 904/378-4735	● EEP, 1/80
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Helen Goins, ext. 274	● EWLF material
	Environmental Education	● College offers degree program in Environmental Science/Health.		● EPCG

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Tallahassee Community College 444 Appleyard Dr. Tallahassee, FL 32304 904/576-5181	Energy General	● Participant on state-wide Energy Task Force, stressing business and economics disciplines; will develop energy-related materials for classroom use in an effort to give students a better understanding of the social, ethical, economic, and political complexities of the world energy situation. ● Energy and Its Environmental Efforts, 3-semester credit course offered through Science and Math departments; part of the general education science curriculum, with stress on alternate energy and conservation. ● All general education science survey courses (Earth and Its Environment, Introduction to the Physical Sciences and Introduction to the Biological Sciences) have units or topics on energy problems.	Dorothy Binger, Director of Applied Sciences Division Rhonda Ryder	● 1/80 Response Letter
	Facilities Conservation	● Through weekly newsletter, college acquaints college personnel with the need for in-house conservation efforts; including ride-sharing, regular-hours use of facilities, reduction of air conditioning and heating, and reduced use of college vehicles. ● College has scheduled an energy survey by an engineer and is applying for monies that are available for equipment purchase; special interest in installing computer controlled heating and cooling system.	Richard J. Metcalf Dean of Administrative Services	● 2/80 Response Letter ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Valencia Community College P.O. Box 3028 Orlando, FL 32802 305/299-5000	Humanities	● Participant in Energy and The Way Live Forums; offered for credit.	Marion H. Baker Science Department	● EWLF material
	Faculty Development	● College is grantee under the 1980 USDOE Faculty Development Education Program; Energy Education: Concepts and Techniques, 11-day intensive workshop for 30 high school teachers with stress on producing 30 resource persons who will return to their schools and communities to disseminate the information and spread the understanding of energy problems and solutions gained through the workshops.		● USDOE Announcement
	Energy General	● College offers Energy, credit course; also used Tel-Ed program.	Robert W. Gilbert, Vice President	● State Energy Office Survey Response 2/80
	Facilities Conservation	● College designed and installed plastic flush valve modifiers in campus rest rooms to cut water usage by 50%.		● AED
	Faculty Development	● College is grantee in the 1981 USDOE Faculty Development program; 11-day seminar for high school teachers, with focus on Energy Education Institute for Center Florida Secondary School Teachers.	Dr. Marion H. Baker, Dept. of Science	● USDOE Announcement ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Washington Holmes Area Vocational Technical Center Route 4 Box 177A Graceville, FL 32440 904/638-1180	Environ- mental Education	College offers certificate program in Drinking Water/Wastewater Treatment Technology.	Wayne C. Saunders, Director	EPCG



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Albany Junior College Albany, GA 31707 912/439-4414	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● Strategies have included: applied energy audit of all buildings; discontinued terminal reheat systems; lowered thermostats in heating season and raised them in cooling season; lowered boiler temperatures; equipped buildings with time clocks to stagger HVAC systems use; reduced lighting; turned off most hot water heaters; confined building use for special events to single building; preventive maintenance applied to HVAC, buildings, kitchen equipment, and vehicles; removed electric heaters from offices.	James R. Saville, Jr Marilyn L. Malphuses 912/439-4222	● EWLF material ● Verified 3/30/81

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Atlanta Junior College 1630 Stewart Ave., S.W. Atlanta, GA 30310 404/656-6441	Energy General	College hosted American Chemical Society conference March 1981, featuring topics on energy and research topics in chemistry teaching, innovations in chemistry instruction, philosophies of teaching chemistry.	Tom Maier 404/656-6365	2/81 2YC₃ News- letter

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Dekalb Community College Dunwoody, GA 30338 404/393-3300	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Randy Pierce Bill Crews	● EWLF material
Clarkston Campus 30021 404/292-3994	Solar	● Solar Heating, 336-contact hour program offered through the Heating/Air Conditioning department, with focus on solar system installation-residential; solar technology-instrumentation, controls, design, maintenance; electricity-solar specialization; and plumbing and sheet metal-solar specialization.	James D. Gray 292-1525, ext. 270	● NSEED '80 ● Verified 4/3/81

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Floyd Junior College P.O. Box 1864 Rome, GA 30161 404/295-6328	Facilities Conservation	● reduced thermostats reading ● limited the evening program by eliminating Wednesday programs and lengthening Monday programs	● Wesley C. Walraven, Dean	● 2/80 Dean Response Letter

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Macon Junior College Macon, GA 31206 912/474-2700	Humanities	• Participant in Energy and The Way We Live Forums.	Robert T. Trammell, Dean of the College	• 1/80 Response Letter
	Facilities Conservation	• College installed underground cables to connect energy systems in individual buildings with central power plant controls, to control and monitor energy use in each building.	Christy Bass Utility Technician	• AED

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South Georgia College Douglas, GA 31533 912/384-1100	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● Variety of strategies include: Orange energy labels pasted over light switches; attention getters are on all individual heater/air conditioner units; hosted several energy seminars; implementing federal building heating/cooling restrictions; consolidating classes into fewer buildings; narrowing spread of operating hours of classes and the Georgia Tech Energy Task Force is conducting an energy audit.	Richard Cotton, ext. 214 David H. Green, Physical Plant Director	● EWLF material ● 12/79 Office Survey Response
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Southern Technical Institute 534 Clay Street Marietta, GA 30060	Environ- mental Education	● Institute offers Nuclear Safety Option in Electrical Engineering Technology program.	Walter O. Carlson, Dean & Executive Director	● EPCG

HAWAII



492

Red Hibiscus

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Hawaii Community College University of Hawaii at Hilo 1175 Manono Street Hilo, Hawaii 96720 808/961-9400	Conservation Humanities	• Participant in a state-sponsored once-monthly car clinic. • Participant in Energy and The Way We Live Forums.	Alfred H. Goto, Acting Dean of Instruction Ronald Yamamoto	• 1/80 Response Letter • EWLF material

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Honolulu Community College 764 Dillingham Boulevard Honolulu, HI 96817 808/845-9211	Facilities Alternate	● College has applied variety of energy conservation measures and member of the Statewide Community Colleges Committee on Energy. Areas include programs and facilities. ● Geography 151: Geography & Contemporary Society. Energy is one unit of the three-credit course. ● Oceanography 230: Ocean Resource and Ecology. Energy is a major focus throughout the three-credit course. ● Political Science 271: Introduction to Political Designs and Futurists. Energy sources, conservation, and uses are important elements in the three-credit course. ● Refrigeration and Air Conditioning 41: Psychrometry and Cooling Load. Solar transmission and heat gain/loss are covered in the five-credit course.	Clyde Yoshioka, Provost, ext. 225 Tom Ohta, Geography Instructor, ext. 160 K. Gopalakrishnan, Oceanography Instructor, ext. 154 Ramsay Pedersen, Social Science Instructor, ext. 264 Thomas Combs, RA Instructor, ext. 224	● 2/80 Survey Response ● Verified 5/7/81

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Kapiolani Community College University of Hawaii 4303 Diamond Head Road Honolulu, HI 96816 808/735-3511	Facilities Conservation	● College has applied various conservation strategies, including: - air conditioning temperatures have been adjusted to higher setting - faculty and students were notified to turn off lights and window conditioning units when rooms are not in use - use of lower watt light bulbs in some of the light fixtures - use of fans in some areas rather than window air conditioning units - use of energy conservation signs throughout campus buildings - college is participating in a grant for Technical Assistance and Energy Conservation Measures initiated by the State Energy Office. The grant will: - ensure that the Energy Audit is properly conducted and the Operation and Maintenance procedures identified in the EA have been implemented - identify all equipment retrofits which would result in energy savings and to pinpoint those that have the quicker pay back by saving the most energy for the fewest dollars.	Joyce Tsunoda, Provost	● 2/80 Response Letter

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Kauai Community College RR1, Box 216 Lihue, Kauai, HI 96766 808/245-8311	Solar	• Alternate Energy Sources, 3-credit course offered through the Math/Science/Technology departments, with focus on alternate energy sources, appropriate technology, solar components, solar systems design, distributed solar power systems, and wind energy conversion systems.	Marshall Mock 808/245-8250	• NSEED'80
	Facilities Conservation	• Applied preliminary energy audit in 1979; led to federal grant to employ analyst to determine measures helpful in conserving energy; following were "quick-fix" activities including removal of some lamps and disconnection of ballasts in some buildings. College has applied for additional funds to apply major retrofit projects.	LeRoy King, Provost	• 2/80 Survey Response

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Leeward Community College 96-045 Ala Ike Pearl City, HI 96782 808/455-0011	Facilities Conservation	● In-house conservation measures include: - air conditioning: raised temperature to 78°, only most efficient chiller unit is used, equipment is turned off manually when classes not in session. - lighting: energy-saving bulbs have replaced inefficient lamps, some fixtures have been turned off by disconnecting transformers - class schedules: classes have been scheduled closer together in one building rather than using several buildings	Provost Melvyn Sakaguchi Michael T. Unebasami, Director of Admin- istrative Services	● 2/80 Survey Response

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Maui Community College 310 Kaahumanu Ave. Kahului, Maui, HI 808/244-9181	Facilities Conservation	● College has applied facilities conservation measures.	Sanae Moikeha, Provost	● 2/80 Survey Response
	Alcohol	● College offers workshops on alcohol fuels production.		
	Conservation	● Energy Conservation in the Condominium, 2-credit course offered through the Vocational-Technical department, with focus on solar components, conservation, materials, and solar domestic hot water. ● Energy Conservation in the Home, 2-credit course offered through the Vocational-Technical department, with focus on solar components, conservation, materials, and solar domestic hot water.	Lafayette Young	● NSEED'80



I D A H O

Syringa

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of Southern Idaho Box 1238 Twin Falls, ID 83301 208/733-9554	Alternative Energy Demonstra- tion	● Present energy projects include a hot water well that has an artesian flow of 1.2 million gallons per day and the development of a windmill to generate power for electricity and water heating.	James L. Taylor, President Milt J. Smith, Development Officer	● 7/11/80 Letter ● 2/1/80 In-house Memo
	Wind	● Working on a plan to heat the entire campus with geothermal energy that will be pulled out of the ground by using wind energy. Within two years the college will be heated by geothermal energy.		
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.		● USDOE Announcement
	Humanities	● Participant in Energy and The Way We Live Forums.	Marvin Glasscock James L. Taylor	● EWLF material

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North Idaho College Coeur D'Alene, ID 83814 208/667-7422	Energy General	Investigating the use of heat from decomposing pits to generate energy. Also, the college is close to a large lumber mill which has surplus steam energy that can be utilized as an energy source.		2/1/80 In-house Memo from Dick Wilson
	Humanities	Participant in Energy and The Way We Live Forums.	Ray Stone	EWLF material

ILLINOIS



Meadow Violet

510

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Belleville Area College 2500 Carlyle Road Belleville, IL 62221 618/235-2700	Solar	● In Air Conditioning, Heating and Refrigeration program is included study in architecture-solar specialization; solar system installation-residential; heating, ventilation, air conditioning--solar specialization. ● In Air Conditioning and Heating II, a 4-credit course, topics covered are conservation, energy storage systems, greenhouse techniques, heat and energy transfer, solar cooling and heating, and solar systems design. ● In Commercial Refrigeration I, a 4-credit course, topics covered are energy conservation and greenhouse techniques. ● In Electrical Controls for Air Conditioning, Heating, Refrigeration, a 4-credit course, topics covered are energy conservation, heat and energy transfer, photovoltaics and solar cells, solar cooling and heating, and solar systems design.	Albert Becker, ext. 315	● NSEED '80

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Black Hawk College Moline, IL 61265 309/796-1311	Humanities Alternatives	● Participant in Energy and The Way We Live Forums; offered for credit. ● College is planning an Alternative Energy survey course, with focus on alcohol fuels, wind, solar, and other benign renewable sources of energy.	Richard Puffer, President Ronald F. Williams Provost Larry Munton, Director, Industrial-Tech. Programs Harry E. Wallace	● EWLF materials ● 9/22/80 Newspaper Article, Star-Courier

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Carl Sandburg College Box 104 South Lake Storey Road Galesburg, IL 61401 309/344-2518	Environ- mental Education	College offers 1- and 2- year programs in Wastewater Treatment Technology.	William A. Anderson President	EPCG

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College of DuPage 22nd Street and Lambert Road Glen Ellyn, IL 60137 312/858-2800	Humanities	● Participant in Energy and The Way We Live Forums.	Harold D. McAninch, President	● EWLF material ● NSEED '80
	Solar	● Introduction to Solar Energy, 60-contact hour course offered through the Extension Division. ● Solar Technology Course.		● 1/79 ERTA, TERC
	Conservation	● Heating, Air Conditioning and Refrigeration Program stresses good service and maintenance for lower operating costs and energy saving. College offers yearly seminar for people within the trades to update them on the current state-of-the-art so that they can better service equipment.	Donald A. Carlson	
	Environ- mental Education	● College offers degree program in Environmental Science/Health.		● EPCG
	Facilities Conservation	● Checking, cleaning, and adjusting furnances; increased efficiency by 8% ● Taking daily readings of the chemicals in the boilers to minimize mineral buildup on heat transfer surfaces and necessary condensation of boiler water ● Lowered the steam pressure in the building and match it with the external load ● Installing phantom tubes in overlit areas		

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College of Lake County Grayslake, IL 60030 312/223-6601	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers 1-year program in Drinking Water/Wastewater Treatment Technology.	Diana Mrotek, ext. 471	● EWLF material ● EPCG

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Danville Area Community College Danville, IL 61832 217/443-1811	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● Based on the results of an audit and supported by a state grant, college modified heating systems, installed storm windows, insulated attics and other areas, reduced lighting, and consolidated scheduling.	Maurice F. Stauder	● EWLF material ● Verified 3/30/81

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Elgin Community College Elgin, IL 60120 312/697-1000	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers degree program in Pesticides and Toxicology.	Mark L. Hopkins, President	● EWLF material ● EPCG

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Frontier Community College Fairfield, IL 62837 618/842-3711	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit. Fifteen town meetings on energy issues separate but supplementing 5 quarter-hour credit course on Energy and the Way We Live. Programs located in five small towns in college district. Meetings focused on solar, earth covered homes, small town energy problems, mineral rights, and nature of national energy problems.	Judith Puckett	● EWLF material ● Verified 4/9/81

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Illinois Central College East Peoria, IL 309/694-5403	Humanities 61635 Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Energy Alternatives, 3-credit course offered through the Community/Environmental Studies program. ● Residential Solar Energy Planning, 48-contact hour course offered through the Community/Environmental Studies program.	Doris Stone D.L.Brooks-Miller, Prof. of Architecture 309/694-5403	● EWLF material ● NSEED'80 ● Verified 4/2/81

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Illinois Eastern Community College Olney, IL 62450 618/395-4351	Solar	● Construction Energy Program, AAS degree program offered through the Applied Science department, with special courses including: - Energy Conservation Theory, 3-credit course with focus on alternate energy sources, bioconversion, energy storage systems, energy transfer, photovoltaics and solar cells, and solar systems design. - Energy Systems in Construction, 3-credit course, with focus on appropriate technology, conservation, energy storage systems, passive solar systems, solar home construction, solar domestic hot water, and wind energy conversion systems. - Gas and Arc Welding, 5-credit course.	Steve Marrs Ray Culver William Parish Russ Jausel	● NSEED '80

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Illinois Eastern Lincoln Trail College Robinson, IL 62454 618/544-8657	Solar	• Air Conditioning and Refrigeration-Load Calculation, 5-credit course offered through the Air Conditioning and Refrigeration department, with focus on alternate energy sources, conservation, appropriate technology, heat and energy transfer, energy storage systems, plumbing and sheet-metal techniques, solar systems testing/evaluation, solar home construction, and wind energy conversion systems.	Robert Harvey	• NSEED'80

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John A. Logan College Carterville, IL 62918 618/985-3741	Faculty Development	College is grantee under the USDOE Faculty Development Education Program; Energy Alternatives: Your Role as a High School Teacher, 5-day workshop for 80 high school teachers; stressed the development, utilization, and conservation of U.S. energy resources.	Jesse Moore, Physical Science	USDOE Annoucement
	Solar	Introduction to Solar Energy, 20-contact hour course offered through the Adult and Continuing Education department, with focus on appropriate technology, centralized solar power systems, energy storage systems, and passive solar systems.	Brent Ehrlich 618/684-4110	NSEED'80
	Facilities Conservation	- College has implemented various facilities conservation measures including: - four-day week for summer semester for the past two years. - annual schedule of classes arranged so students attend no more than three days a week. Only a few science majors find such a schedule difficult. - students who car-pool are allowed to park in a special lot for easy, no-cost access to the building. Started fall semester 1979 and is growing in popularity. - building temperatures have been reduced to 65° and the temperatures have been further reduced during the evening and weekend hours.	Ray Hancock, Dean of Instruction	1/80 Dean Response Letter

C O L L E G E	Program(s) Focus	A C T I V I T Y	Contact Information/ Person	Reference(s)
John A. Logan College Carterville, IL 62918 <u>CONTINUED</u>	Alcohol Alternatives	- beginning in 1979-80, college was shut down totally for over a week during Christmas - New Year holidays. - the college will be requesting equipment retrofitting in near future, including modifications to reduce intake of outside air and automatic start-up equipment to reduce the amount of time equipment is run prior to occupancy of the building. - the college currently heats with natural gas and has fuel oil as a back-up. The possibility of converting to coal is being explored. • College, through contractual arrangements, is presently cooperating with Southern Illinois Incorporated to provide space for experimentation with alcohol as an alternative fuel. This project is under a grant from the federal government. • College's Division of Institutional and Community Services has held one successful seminar on alternative energy sources with good representation from both the public and private sector.		

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Joliet Junior College Joliet, IL 60436 815/729-9020	Facilities Conservation	• College offers Nuclear Reactor Technology course. • The college established an energy conservation program in 1977, and as result has: installed an energy monitoring computer, regulated chiller water temperature when humidity permitted, initiated an awareness program, installed an enthalpy control system, reduced summer sessions to four days, conducted an energy management workshop, scheduled custodial work during daylight hours versus nighttime, reduced building temperatures in winter, increased building temperatures in summer, uses only a minimal amount of heat in hallways, used light reflective colors in re-painting program, reduced weekend activities during normal school year, established illumination levels, reduced unnecessary lighting, used more efficient lights, sequenced chiller operation, conducted an energy audit, reduced fan speeds and rebalanced system.	Derek N. Nunney, President	• 1/79 ERTA, TERC • Verified 4/6/81

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Kankakee Community College Box 888 River Road Kankakee, IL 60901 815/933-0345	Energy General	Sponsored free energy fair in celebration of Sun Day on May 3, 1980. Theme was energy-conserving and alternative energy-producing materials and equipment.	Kris Mathers, Energy and Environmental Consultant	4/80 College News Flyer
	Alcohol Fuel	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	John Hacker	USDOE Announce- ment
	Solar	Solar Energy Survey - Solar Heating and Cooling, 48-contact hour course offered through the Vocational Technical department.	Kris Mathers	NSEED'80
	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.		- EWLF material - Verified 4/2/81

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Lake Land Community College South Route 45 Mattoon, IL 61938 217/235-3131	Alcohol	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 1-day workshops have been offered for 300 businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Tom Reedy, Division Chairman, Agriculture and Life Science	12/79 Survey Response from State Energy Office
	Facilities Conservation	Under guidance from the state Institute of Natural Resources, devising an energy management system; as part of effort, currently computerizing car-pool system and conducting energy conservation workshops.		1/80 Response Letter
		College has installed a computerized control system to monitor and manage energy usage.	Bob Strohl	9/80 Office Survey
	Information Center	Compiling library of energy-related materials at college, and developing materials packets for local resident use.		
	Conservation	Offers community seminars on Home Energy Conservation.	Chuck Wieck	
	Solar	- Solar Heating for Greenhouses, course offered through the Applied Science department; a solar panel in use at the college is applied for demonstrations. - Installed a solar collector in greenhouse; used, in part, for demonstration purposes for science classes.	Ray Culp	
	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.		EWLF material

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Lake Land Community College Mattoon, IL 61938 <u>CONTINUED</u>	Faculty Development	College is grantee under 1980 USDOE Faculty Development Education Program; Applications of Rural Energy Alternatives, series of four workshops for elementary and junior high school teachers, with focus on coal, gasohol, nuclear, and solar as state resources.	Charles Wieck	- USDOE Announcement - Verified 4/2/81

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Lincoln Land Community College Springfield, IL 62708 217/786-2200	Alcohol	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale. Methane production topics also discussed.	Robert Poorman	USDOE Announcement
	Humanities	Participant in Energy and They Way We Live Forums.	Carol L. Goode	EWLF material
	Facilities Conservation	- College conducted state-wide "Gas Crunch" meeting for community colleges to identify means through which the colleges could conserve energy. Report available. - College conducted energy audit, leading to construction retrofit of buildings, including thermopane, insulation, air-locks, relamping, HVAC changes, and parking lights. Installed Honeywell energy management mini-computer to monitor HVAC controls. Installed 64 Northrup parabolic, tracking solar collectors for heating, cooling backup for small, new horticulture building. Installed 3kw Jacobs wind generator for partial electrical needs in new horticulture building. Installed phantom fluorescent tubes, and lowered light levels in common spaces. Established 4-day summer session. Increased ceiling insulation in community services building. Initiated a car-pooling program, and increased mass transit bus service to college.		

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Lincoln Land Community College Springfield, IL 62708	Alternate	● College was one of the top award winners (\$10,000) in the Academy for Educational Development energy conservation competition (1980). ● College is considering the creation of an AAS degree program in Alternate Renewable Energy/Fuels Technology.		● 3/6/81 meeting
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lincoln Trail College Rural Route 3 Robinson, IL 62654 618/395-4351	Petroleum	● AAS degree program in Petroleum Technology, with 11 core courses, including 3-month summer internship requirement. A three-month course in drilling technology for drill crews is offered for 16 hours credit. A three-week OJT is included.	Dr. Richard Sanders	● 1979 Hamilton Report
	Solar	● 5-credit course, Load Calculation, part of Air Conditioning and Refrigeration curriculum, stresses alternate energy sources, appropriate technology, conservation, conversion, energy and heat transfer and introduction to solar energy.	E. Duickay, Head, Petroleum Engineering Technology	● NSEED'80
	Environ- mental Education	● College offers degree program in Drinking Water/Wastewater Treatment Technology.		● EPCG ● Verified 4/4/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
McHenry County College Route 14 & Lucas Road Crystal Lake, IL 60014 815/455-3700	Solar	● Solar Energy Fundamentals, 1-CEU credit course offered through the Natural Science department with focus on introduction to solar energy, solar domestic hot water, solar heating, and solar systems design.	John D. Konitzer, ext. 222	● NSEED'80
	Energy General	● College offers variety of energy awareness workshops for students and the public and promotes car-pooling.	Deborah Lee Welch Student Activities Coordinator	● AED

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Moraine Valley Community College 10900 South 88th Avenue Palos Hills, IL 60465 312/974-4300	Energy General	● College conducted 2-day Energy Conference; included solar equipment displays, and seminar presentations by local energy experts.	Arlene Zoller, Admin. Assistance for Special Projects	● EEP 1/80
	Solar	● Introduction to Solar Energy, non-credit course; including practical applications in local climate, technology of flat plate collectors, heat loss, thermally efficient homes, and available products. ● Introduction to Passive Solar Design, non-credit, 12-contact hour course, with focus on the history of passive solar design and the design of a system.		
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Robertta Balke, ext. 360	● EWLF material
	Audit	● College has offered all-day seminars on the fundamentals of energy auditing for professional energy managers.	James D. Koeller, President	● 11/80 Solnet

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oakton Community College 1600 E. Golf Road Des Plaines, IL 60016 312/635-1600	Audit Conservation	● Management of Energy in the Industrial Plant Seminars: - 2 hours/week - 10 weeks - cooperate with American Institute of Plant Engineers - 50 people total - industry prov. instructors - non-credit - charge: \$125 - students were industrial plant engineers	Suzanne Jacobs 312/635-1666	● Discussion with K. Arns
	Energy General	● Series of 1-day workshops (started 11/79 (given under auspices and in cooperation with Energy Education Programs, Inc. of Woodstock, Illinois, for elementary school teachers and administrators. Gives overview of energy situation and energy systems, including alternate and conventional, emphasis on conservation; Commonwealth Edison Underwrote expenses. ● Community Energy Fair - two days, Sat & Sun - industry exhibitors brought products with retail availability - exhibit included computer programmed to analyze house energy use and to provide suggestions for savings - telephone hook-up to MIT computer so individuals could check a second way for home conservation		
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Carole Kleinberg	● EWLF material
	Solar	● Solar Energy and Energy Conservation. 20-contact hour course offered through the MONNACAEP department,	Richard T. Philip	● NSEED '80 ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oakton Community College Des Plains, IL 60016		with focus on conservation, green- house techniques, heat and energy transfer, solar heating and solar home construction.		
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Olney Central College Olney, IL 62450 618/395-4351	Conservation	The college offers a Construction Energy Technology program which concentrates on energy conservation in residential construction and includes all aspects of energy conservation including the use of renewable resources in construction. Courses offered range from basic carpentry through special courses in solar specialization including installation, maintenance, plumbing and electricity. Also offered are courses concentrating on the mathematics required for heatload calculations, etc.	Douglas Hickman, ext. 283 Mike Mitchell, ext. 224 Bill Parris, ext. 224	- INR, State of IL - Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Parkland College 2400 West Bradley Avenue Champaign, IL 61820 217/351-2200	Alcohol	- College has offered two state-wide Alcohol Fuels Production conferences in cooperation with the Illinois Department of Agriculture and the Bureau of Alcohol, Tobacco, and Firearms. - Applied Chemistry of Alcohol Fuel Production, 2-credit course designed for non-chemistry students, with hands-on laboratory experiences.	Gayle Wright, Chairman, Math/Physical Science Division, 217/351-2311	4/81 Letter
	Solar	- Conducted state-wide Cost Effective Solar Solutions, two-day conference, 11/7-8/80, in cooperation with Illinois Institute of Natural Resources, Mid-America Solar Energy Complex, and Solar Energy Research Institute. Target groups included teams of architects, contractors/developers, survey-engineers, lenders, appraisers, realtors, and elected and appointed government officials. - College conducted state-wide Solar and Wind Energy for the Farm, two-day conference, 3/13-14/81, in cooperation with the Illinois Department of Agriculture, Illinois Institute of Natural Resources, and Mid-America Solar Energy Complex. Target groups included grain farmers, livestock producers, and rural residents.		
	Faculty Development	College is planning The Challenge of Energy Education, a four-day workshop for elementary and secondary teachers, in cooperation with the National College of Education, Energy Education Programs of Woodstock, and Illinois Power Company		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Parkland College Champaign, IL 61820		Illinois Power Company; 2 graduate credits; focus will be placed on energy production, use, distribution, and conservation. 8/17-20/81.		
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rend Lake College Rural Route 1 Ina, IL 62846 618/437-5321	Coal	● College offers coal mine technology training program.	Harry J. Brown, President	● Oak Ridge Coal Mining Report

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Richard J. Daley College 7500 South Pulaski Road Chicago, IL 60652 312/735-3000	Energy General	Physical Science, Social Aspects of Energy, 3-credit course, covers the operational definitions of work and energy; common energy sources; energy conversion to useful forms; transmission and consumption of energy; comparative costs and availability; by-products of energy use; pollution; alternate energy sources; conservation and social implications.	Ralph J. Vesecky, Professor, Physics	2/18/81 Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rock Valley College 3301 North Mulford Road Rockford, IL 61101 815/654-4250	Energy General Conservation Facilities Conservation	● Earth Science course, <u>Energy, Society and Environment</u>. ● Adult Continuing Education division has offered various seminars and workshops of a public service nature concerning energy conservation. ● In-house conservation efforts include: closed campus during Christmas break; four day classes in summer; during June thru August the campus will be closed as an energy conservation measure three days of each week; and abiding by federal guidelines concerning conservation.	Richard L. Bernardi, Dean, Liberal Arts and Sciences	● 1/80 Survey Response ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Sauk Valley College R.R. 1 Dixon, IL 61021 815/288-5511	Alcohol	Alcohol Production and Use, 2-credit course offered through the Agriculture department, with focus on history of alcohol production, fit with feed and food production, site selection, feed stock selection, fermentation, and distillation. College is planning a sequence of courses or seminars relating to alcohol production and use, including engine conversion, still construction, and exploring fuels other than alcohol.	James Strickland, Dean of Career Education	7/11/80 College News- release

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southeastern Illinois College Rural Route 4, College Drive Harrisburg, IL 62946 618/252-6376	Conservation	● Energy workshops and courses entitled "Home Energy Innovation and Conservation." The workshops have been conducted in cooperation with the Regional Planning Commission, the Division of Adult Vocational and Technical Education, the Illinois Office of Education and the U.S. Department of Energy.	Robert Gregg	
	Engine Conversion	● Workshop for community college faculty focused on the specialized retrofitting of diesel and gasoline engines into multi-fuel type engines.		
	Alcohol	● Public workshops during the spring of the year emphasized distillation of grain alcohol as well as engine conversions. ● College has received funding for the construction of a 500,000 gallon/year ethanol plant inside Vienna Correctional Center; a curriculum will be developed to train technicians, with the program available to institution residents and local community people. More than \$500,000 has been awarded for the program from a group of agencies, including: USDOE (\$98,000), State Vocational Education Office (\$225,000), State Correctional School District (\$45,000), and State Corrections Industries (\$150,000). Project began 8/80. By-products of the ethanol production will be used as food for a new catfish operation, new shrimp beds, and wild life feed		
			Hartzel Black 618/658-9090	● 1/29/80 and 12/10/80 Telephone ● Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southeastern Illinois College Harrisburg, IL 62946	Coal	experiments. Research activities will accompany the project. • College offers coal mine technology training programs	Robert Gregg	
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Spoon River College Rural Route One Canton, IL 61520 309/647-4645	Environ- mental Education Energy General Facilities Conservation	● Energy and the Environment, 2-credit course offered through Physical Science department. ● Energy use is considered in numerous classes within curricula including: Agriculture, Biological Science, Physical Science, Pre-Engineering, General Science, Agricultural Management, Automotive Mechanics, Farm Machine Technology, Machine Design Technology, Diesel Mechanics, Industrial Electrician, Small Engines, Welding and Health Safety and Environment. ● Continuing Education offerings include two dozen credit and non-credit courses with such titles as Home Energy Management, Basic Car Tune-up, etc. ● Public Service efforts include cooperative arrangements with other agencies in sponsoring a two-day workshop on energy management and technologies held last year. ● The institution completed a thorough energy audit in December, 1979. Conservation strategies include: - four-day work week was in effect during the summer months in 1979 - thermostats have been set according to energy-conserving guidelines - insulating panels in expansive glass areas have been installed - car-pooling arrangements are being	Carol Gummerson, Adult Re-Entry Coordinator	● 2/80 Response Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Spoon River College Canton, IL 61520 <u>CONTINUED</u>	Humanities	considered - Hot water heaters are controlled by timing devices as have been lighting in general exit-entrance areas - lighting has been reduced as possible ● Participant in Energy and The Way We Live Forums.	Merv Smart	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Thornton Community College 15800 South State Street South Holland, IL 60473 312/596-2000	Energy General	College received grant from the State Department of Adult Vocational Technical Education to develop a curriculum, including design, installation and maintenance of energy equipment for industry and residences.	Norma Rooney, Dean Career Education	2/80 Response Letter
	Humanities	Participant in Energy and The Way We Live Forums.	Douglas N. Picciano	EWLF material
	Energy Library Material	College was awarded a grant from Northern Illinois Gas to purchase materials on energy; has set up a special energy section in the LRC.	Nathan A. Ivey, President	Illinois St. C.C. Bd. News-letter
	Facilities Conservation	In-house facilities conservation activities include: supply and return fans have been put on computer control, pneumatic controls for discharge temperature on outside sensors along with water temperature controls have been installed, reduced lighting use, and raised discharge temperature from the supply air fans.	Dave Wilkin	Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Triton Community College 2000 Fifth Avenue River Grove, IL 60171 312/456-0300	Energy General	- Through Continuing Education department, college has offered a variety of energy-related courses, including: - Solar Energy Technology, one-day seminar with stress of solar energy fundamentals, solar collectors, energy storage systems, and energy distribution systems. - Energy Conservation: Decisions for Industry, one-day seminar with stress on energy, engineering, and economic requirements; zero-based energy planning and budgeting; and applications to specific energy conservation capital projects. - Energy Audit Program, 2-day seminar with focus on lighting, heating, ventilating and air conditioning, combustion, heat recovery, energy conservation, and domestic hot water and compressed air. - Alternative Heating Methods, one-day seminar with focus on fireplace and wood burning stove design and installation. - Energy Performance Standards and Codes for Buildings, 3-evening seminar, with stress on energy fundamentals, HVAC systems and equipment, service water heating and electrical distribution and lighting systems.	Brent Knight, President John B. Trebee, Dean of Continuing Education	2/14/80 Response Letter
	Nuclear	College offers Nuclear Medicine Radiological Technology program.		1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wabash Valley College 2200 College Drive Mt. Carmel, IL 62863 618/262-8641	Coal Humanities Facilities Conservation	● College offers AAS degree and certificate in Coal Mining Technology. ● Participant in Energy and The Way We Live Forums; offered for credit. ● Conservation strategies include: - building temperatures are maintained within the guidelines of the "Emergency Building Temperature Restrictions" - summer sessions operated on a four day week - extensive use is made of insulation in remodeling of new building construction - an energy audit of the buildings was conducted in 1979; Energy Conservation Grants have been filed for assistance in retrofitting three buildings as per recommendations from the Energy Management Unit of the Capital Development Board of the State of Illinois - long-life energy saving fluorescent lamps are being used as replacement lamps - electrical power to refrigerated drinking fountains has been turned off during winter months - heat in vestibules has been shut off - selected light fixtures in hallways and restrooms have been delamped.	Ed. Bennett, Dean of Records	● 2/80 Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wabash Valley College Mt. Carmel, IL 62863		- the HVAC system of one large building has been modified to save energy-		
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Waubonsee Community College Sugar Grove, IL 60554 312/466-4811	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers certificate and degree programs in Environmental Engineering Technology.	Forest D. Etherage President	● EWLF material ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wilbur Wright College Chicago, IL 60634 312/777-7900	Humanities	Participant in Energy and The Way We Live Forums. Forum topics included: Search for Solutions, Energy and the Good Life, Energy and our Political and Economic Institutions, Energy Self-Sufficiency and Global, and Interdependence, Einstein 1879-1979: A Centennial Exhibit.	Barbara W. Blomquist, ext. 51 Ernest V. Clements, President	- EWLF material - Verified 4/14/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
William Rainey Harper College Palatine, IL 60607 312/397-3000	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Solar Energy Architecture, 3-credit course offered through the Architectural Technology department with focus on conservation, energy storage systems, introduction to solar energy, and passive solar systems.	Joseph Yohanan	● EWLF material ● NSEED'80



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Indiana Vocational Technical College 3501 1st Avenue Evansville, IN 47710 812/426-2865	Solar	• Alternate Energy Fundamentals, 3-credit course offered through the Heating, Air Conditioning, and Refrigeration department.	Gerald Foster, ext.: 29	• NSEED'80 • Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Indiana Vocational Technical College 1315 E. Washington Street Indianapolis, IN 46202 317/635-6100	Solar	● Applied Design, 4-credit course offered through the Heating, Air Conditioning and Refrigeration department, with focus on solar heating.	Walter Hilmes, ext. 56	● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Indiana Vocational Technical College 8204 Highway 31 West Sellersburg, IN 47172 812/246-3301	Solar	• Solar Heating, 2-credit course offered through the Heating and Air Conditioning department, with focus on solar components, conservation, energy storage systems, heat and energy transfer, solar systems design, and solar systems installation/maintenance.	Billy J. Van Cleave, ext. 43	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Indiana Vocational Technical College Northwest Region Gary, IN 46409 219/981-1111	Environ- mental Education Environ- mental/ Auto	• College offers degree program in Drinking Water/Wastewater Treatment Technology and Environmental Studies. • College conducted Visible Emmission Evaluation Certificate program to certify federal, state and local regulatory personnel and industrial personnel as Certified Visible Emission Evalutors.	David A. Shipe Training Coordinator	• EPCG • Verified 4/10/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Indiana Vocational Technical College Wabash Region Terre Haute Campus 7377 Dixie Bee Hwy Terre Haute, IN 47802 812/299-1121	Humanities Coal	● Participant in Energy and The Way We Live Forums. ● College offers AAS degree program in Surface Mining Management Technology, with support from U.S. Department of Interior through State Department of Labor.	F. Richard Nicoson Sam E. Borden Vice President-Dean F. Richard Nicoson Director, Extended Services	● EWLF material ● 2/25/81 Letter ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Vincennes University Vincennes, IN 47591 812/882-3350	Earth Shelter Environ- mental Education Alcohol Conservation Solar	• Workshops offered on underground earth shelters. • College offers class on Energy and the Environment. • College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale. • Presented home energy conservation programs for local TV and radio stations and presented solar energy and underground housing programs on a local radio station. • Developed articles on both alcohol fuel production and energy conservation for the local newspaper. • Solar Heating and Cooling, 20-contact hour course offered through the Physics and Engineering department, with stress on solar heating and solar systems design.	Darvle Riegle 812/885-4197	• 12/79 Survey Response • NSEED '80

I O W A



Wild Prairie Rose

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clinton Community College Clinton, IA 52732 319/242-6841	Energy General	College is grantee in the 1980 USDOE sponsored Faculty Development Education Program; college effort is a Program for Energy Education-Energy in Agriculture and Industry, 11 days.	John L. Bonte, Department of Math and Science	DOE Announce-ment
	Alcohol	College offers Alcohol Fuels Training, Certificate program.	Warren Bloom Robert Illingsworth	2/6/80 Letter
	Facilities Conservation	College is grantee in the 1981 Faculty Development program; 11-day program for high school teachers, with focus on Energy Education-Energy in Agriculture and Industry.	John L. Bonte	DOE Announce-ment
	Solar	College offers a solar technology course as part of the Technology Drafting program.	Richard Johnson	Verified 4/23/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Eastern Iowa Community College 2804 Eastern Ave. Davenport, IA 52803 319/322-5015	Humanities	● Participant in Energy and The Way We Live Forums.	Parcia A. Brockhage	● EWLF material
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Samuel L. Stone	● USDOE, OCA FACT SHEET
	Energy General	● College district is actively seeking funds to up-grade and expand existing programs, to implement facilities conservation activities, and to create new energy courses. ● Community Education runs a series of short courses (non-credit), including: Intro to Residential Solar Application, Passive Solar Design, Movable Insulation, Alcohol Production and Usage.	Ron Holmes	● Verified 4/6/81
		● Participant in Special Studies & Projects in Energy Education & Training.	Warren Bloom, Clinton Community College	
	Facilities Conservation	● Participant Faculty Development Programs Energy Education. ● Facilities energy audit was conducted at the three colleges and recommendations of an engineering consultant firm were implemented.	John Bonte, Clinton Community College John Blong	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Hawkeye Institute of Technology Box 8015 Waterloo, IA 50704 319/296-2320	Alternate	● College has offered a series of non-credit energy-related courses/workshops/seminars/training programs, including: - Alcohol Fuels Workshop, 3-day intensive, hands-on workshop using equipment available to the farmer, with small plant designed for farm operations. - Fuel Alcohol Overview, 3-hour overview of current alcohol fuel circumstances, including discussion on economics, equipment, tasks, and decision-making: effort made to disspell myths, rumors, and misconceptions regarding alcohol fuels. - Underground Housing Workshop, 1-day workshop explaining principles, design, construction, and advantages of underground housing. Offered through the Adult Education department. - Energy Workshop, 1-day workshop in cooperation with the Iowa State Extension Service and the Iowa Energy Policy Council with focus on alternative energy: solar, alcohol, and wind.	L.T. Smiley L.T. Smiley Dan Brobst L.T. Smiley	● 9/80 Survey Response ● Verified 4/3/81
	Solar	● Through Continuing Education Dept., short non-credit courses (36-hours) offered in Passive Solar Design, Residential Energy Conservation/Alternatives.	L.T. Smiley	
	Audit/ Conservation	● Through Continuing Education Dept., workshops for schools, hospitals, long-term care facilities, businesses	L.T. Smiley	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Hawkeye Institute of Technology Waterloo, IA 50704		dealing with energy audits and energy conservation procedures.		
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Indian Hills Community College Ottumwa, IA 52501		College installed a JC-85-10 Johnson Controls 64K digital micro computer, analog sensing devices for temperature and humidity, and modems to convert analog signals to digital. Software was purchased and installed to duty cycle airhandling units separately in each of the five zones and to establish a deadband temperature range where neither heating nor airconditioning can be called for. Automatic non-occupancy temperature set-backs and an external alarm system (when critically high or low temperatures may occur) were installed.	Dave Knauer, ext. 5200 Alvin Schmidt, ext. 5139	
<u>CONTINUED</u>		College replaced 425 four-tube fluorescent lamps with watt-miser type tubes. Replaced 116 150-watt flood bulbs with 75 ER 30 bulbs. These two items reflect annual savings of \$1,250.	Alvin Schmidt, ext. 5139	
	Solar	College has conducted 2 one-day exhibit seminars for fuel conservation with emphasis on insulation, passive solar system, modified active solar panels, installation and maintenance of heating and/or cooling units.	Bob Wells, ext. 5182	
	Conservation	College offers adult evening programs on energy conservation as it pertains to homeowners and small business.	Bob Wells, ext. 5182	
	Energy General	College offers Solar Heating & Hot Water, Concrete Seminar, Energy Grants Workshop and Solar Energy.	John Vandello, ext. 5183 Jan Winslow 515/856-2143	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Iowa Central Community College 330 Avenue M Fort Dodge, IA 50501 515/573-3991	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 9 3-day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale. ● Farm Ethanol Institute, 3 days, offers instruction on ethanol production, farm-scale still construction, and uses of ethanol as an alternative fuel; demonstrations with emphasis on grinding corn, fermentation, denaturing and cost analysis. Curricula includes: overview of ethanol production, economics, legal and regulatory aspects, chemical and fabrication skills, farm engine conversions, feedstock by-products, design, and construction of ethanol plant, atomospheric distillation operation, vacuum distillation, absorption distillation, open discussion, and observation of operating farm-scale plant. College has also offered one one-day Ethanol Institute Grantee for a research project to study the pollution casts and returns of 12 small-scale farm stills.	Edwin Barbour 515/576-3103	● USDOE Announce-ment ● 1/80 Response Letter ● Verified 4/4/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Iowa Lakes Community College District Esterville, IA 51334 712/362-2601	Humanities Environ- mental Education	• Participant in Energy and The Way We Live Forums; offered for credit. • College offers degree program in Environmental Engineering Technology.	James van Eldik	• EWLF material • EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Iowa Valley Community College District Marshalltown, IA 50158 515/752-4643	Facilities Conservation	District has produced and funded a comprehensive energy-use and conservation plan which includes statements on general energy use, preventive maintenance, 'quick fix' programs, and future projects supported by CETA and others.	John J. Prihoda, District Superintendent	College Report
	Humanities	Participant in Energy and The Way We Live Forums.	Gary Mohr	EWLF material
	Energy Management	Energy Management Technician, AAS program, provides students with essential skills to install, operate, maintain, et al, systems & devices used for conversion of fuels into energy, to conduct energy audits, and recommend retrofits. Courses include: Fundamentals of Energy Technology, Energy Production Systems, Energy Conservation, and Energy Economics and audits.	Dennis Kothenbeutel, at Marshalltown Community College 515/752-7106	Verified 3/31/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Kirkwood Community College P.O. Box 2068 Cedar Rapids, IA 52406 319/398-5411	Facilities Conservation	● Ridesharing program/ also known as "Come Together" - addresses students' and staffs' need for a viable alternative form of transportation to and from campus - surveys are distributed at registration to students and to staff - car pool lists are drawn up from the returned surveys - the staff holds get-acquainted parties for the potential car poolers where the lists are distributed and people have a chance to meet each other and set up car pools - car pools with three or more members have preferential parking - bus passes and schedules are available at the campus information desk - posters, newspaper articles, and radio spots are used to promote the use of public transit, car pooling, biking, and walking to and from school - campus information desk serves as clearinghouse on transportation questions.	Claire D. Cornell, Grants Development Officer	● 1979-80 Winter COMBASE News-letter
	Energy General	● Energy Today, 12-hour, interdisciplinary (science, social science, and physics) offered through the Telenetwork system, with emphasis on elements of the energy crisis and strategies for citizen response to it.	Larry Bean.	● College News-Release

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Kirkwood Community College Cedar Rapids, IA 52406		● Continuing Education Division offers courses and workshops, as follows: - Earthsheltered Housing: Going Under to Stay On Top - A Consumer's Guide To Solar & Other Energy Related Products - Retrofitting: Remodeling For Energy Efficiency - Solar Greenhouses - Solar Hot Water Heaters: Saving Money And Energy Year Around - Energy Efficient Landscaping: Adding Beauty, Saving Dollars - Passive Cooling: Low Cost Air Conditioning - Nothing New Under The Sun: A History Of Solar Technology & Architecture - Electricity From Windpower & Photovoltaic Solar Cells - Solar Interiors & Exteriors: Designing For Energy Efficiency - Energy Saver "81": A Super-Insulated Passive Solar Home - Auto Maintenance & Gas Mileage Improvement Clinic - Applying For Funds: Appropriate Energy Technology Small Grants Program.	Tom Gartland	
<u>CONTINUED</u>	Environ- mental Education	● College offers 1-year program in Drinking Water/Wastewater Treatment Technology, and certificate and degree programs in Environmental Science/Health.		● EPCG ● Verified 4/2/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Marshalltown Community College 3700 South Center Street Marshalltown, IA 50158 515/757-7106	Management	● Offers a two-year AAS Degree in Energy Management Technology. The 71-semester hour program includes courses in physics, chemistry, technical math, energy technology, microcomputer hardware, energy production systems, mechanical and fluid systems, electronic devices, schematic and blueprint reading, and heating/ventilation/air conditioning.	Dennis Kothenbeutel, Instructor/Coord- inator	● 2/80 Survey Response
	Facilities Conservation	● Building operation has been tailored to comply with an "Official Energy Policy," enabling them to document savings of \$142,000 over a three-year period while investing only about \$1,000 in equipment.		
	Humanities	● Participant in Energy and The Way We Live Forums.	Paul L. Kegel	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Muscatine Community College 152 Colorado St. Muscatine, IA 52761 319/263-8250	Solar/ Conservation	● Carpentry program student build one house per year as part of hands-on experience. A recent home has been built with solar energy and conservation features.	Jack Oharah	● 10/80 Office discussion with President ● Verified 6/11/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northeast Iowa Technical Institute Peosta, IA 52968 219/556-5110	Solar	• Carpentry class has built a passive solar home.	Ronald Klein, Carpentry Instructor	• Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwest Iowa Technical College Highway 18 West Sheldon, IA 51201 712/324-2587	Solar	• Solar Heating and Cooling, 4-credit course offered through the Construction department, with focus on introduction to solar energy, passive solar systems, solar heating and solar home construction.	Larry Sturdevant, ext. 78	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Scott Community College Belmont Road Bettendorf, IA 52722 319/359-7531	Solar	● Solar Energetics Technology, AA degree program offered through the Industrial Division, with focus on heating, ventilation, air conditioning-solar specialization; solar technology-instrumentation, controls, design, and maintenance. ● Solar Installation and Maintenance, Certificate program.	Myron Hummel, Ext. 260 Mike Jund	● NSEED'80 ● Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Waldorf College Forest City, IA 50436 515/582-2450	Alternatives Facilities Conservation	● College has held a series of lectures for the general public on topics related to the energy problem; i.e., solar energy and hydrogen as fuels. ● Conservation changes have included: - covering some of the larger windows with plastic or styrofoam - removing two bulbs from a four-bulb fluorescent fixture (especially hallways) - setting all thermostats at 65 degrees - putting thermostats under cover - turning off lights when not in use - arranging with the local natural gas supplier to ensure fewer natural gas interruptions.	Susanne Tjornhom Dean of the College and Vice President for Academic Affairs	● 1/80 Response Letter ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Western Iowa Tech Community College P.O. Box 265 Sioux City, IA 51102 712/276-0380	Humanities Solar	● Participant in Energy and The Way We Live Forums ● College offers Solar Systems Technology AAS degree program, with focus on solar energy education, general contracting-specialization in solar design/installation, solar system installation-residential/commercial/industrial, solar technology-instrumentation/controls/design/maintenance, electricity/plumbing/sheet metal-solar specialization. Specialty courses include: - Building Design for Solar Systems - Integrated Solar Science I and II - Introduction to Solar Systems - Solar Feasibility Cost Analysis - Solar System Maintenance - Solar Systems Application I and II - Technical Mathematics ● College offers 30-contact hour Adult Education evening class, Solar Energy For The Homeowner.	Robert H. Kiser President Jane Sellon Melvin Forsling, Instructor, ext. 212 Al Bruning	● EWLF material ● NSEED'80 ● Verified 3/30/81



Sunflower

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Barton County Community Junior College Great Bend, KS 67530 316/792-2701	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● College offers AA degree in Solar Energy Technology, with focus on solar energy education, mechanical/electrical contracting, solar design/installation, system installation-residential, maintenance, electricity, solar technology-controls/design/maintenance, plumbing, do-it-yourself home installation. Specialty courses include Solar Installation and Service, Solar Technology and Applied Science I, Solar Technology and Applied Science II, and Solar Technology and Heat Pumps.	Merlene Lyman, ext. 221 Neil Greer, ext. 149	● EWLF material ● NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Colby Community College Colby, KS 67701 913/462-3984	Alcohol	- Initiated week-long alcohol fuels workshops in May 1979 and continues to offer them; more than 800 persons have participated from 47 states and 4 foreign countries; program served as model for the DOE-supported alcohol fuels workshops grant competition available in October '79 through which 40 postsecondary institutions were awarded \$10,000 grants to conduct similar workshops in their own locations. - In July 1980, presented a two-week Operators School on alcohol fuels production with plans for a second if interest warrants it. - In Fall 1980, began an AAS degree program Alcohol Fuel Technology, featuring 25 hours of transferrable credits and special courses on ethanol production. - In the fall of 1981 a one-year certificate program in Alcohol Fuel Technology will be initiated. The program is designed to put the person in the field after nine months of education.	James H. Tangeman, President	College fliers and program brochure
	Solar	- Sponsoring limited applied research on solar heating panels. - A course in the construction of passive solar greenhouses is being offered. It includes the theory and design, choice and selection of materials, and critical factors to be considered in addition to the actual construction of a greenhouse.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Colby Community College Colby, KS 67701	Humanities Energy General	● Participant in Energy and The Way We Live Forums; offered for credit. ● College was 1980 \$10,000 award winner in the Academy for Educational Development competition for energy conservation programs.	Robert Carrier, ext. 209	● EWLF material ● Verified 4/8/81
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Dodge City Community College U.S. 50 By-Pass and 14th Avenue Dodge City, KS 67801 316/225-1321	Energy General	● Fall of 1978, the Western Kansas Community Services Consortium made available to the 51 counties in Western Kansas information programs concerning energy and alternatives. This was accomplished by providing one, two and three day workshops for faculty in the field of Science, Fine Arts and Agriculture.	Harlow D. McCosh, Dean Community & Technical Education	● 2/80 Response Letter
	Solar	● Alternative Energy Sources, 3-credit course offered through the Science/Math department, with focus on alternative energy sources, conservation, and solar domestic hot water.	Ronald G. Albrecht, Ext. 239	● NSEED '80
	Alcohol	● In the fall, 1979, the college's Agriculture Division helped farmers construct alcohol stills. The college presented 6 seminars on still-making and the use of alcohol in machinery with the use of corn, ensilage, etc., using the by-product as a feed for livestock. ● College is developing a still-making process that uses the exhaust from a diesel engine to act as energy (heat) for the still process to make alcohol to run the diesel engine.		
	Humanities	● Participant in Energy and The Way We Live Forums.	Tim Peterson	● EWLF material

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Garden City Community Junior College 810 Campus Drive P.O. Box 977 Garden City, KS 67846 316/276-7611	Solar	• Alternate Solar Energy, 3-credit course offered through the Industrial Education department, with focus on alternate energy sources, bioconversion, conservation, and solar law/legislation. • Solar Energy, 3-credit course offered through the Industrial Education department, with focus on appropriate technology, solar components, passive solar systems, solar heating, solar systems design, and wind energy conversion systems.	Gerald W. Hundley	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Johnson County Community College Overland Park, KS 66210 915/888-8500	Humanities Faculty Development	• Participant in Energy and The Way We Live Forums. • College is grantee under 1980 USDOE Faculty Development Education Program; Energy: Concepts to Applications, a 7-day workshop for 40 junior and senior high school teachers, addressed energy supply and demand issues and energy-ecological concepts.	Linda Cole, Ext 592 Kevin A. Gratton, Dept. of Natural and Health Related Sciences	• EWLF material • USDOE Announcement

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Kansas Technical Institute 2409 Scanlan Ave. Salina, KS 67401 913/825-0275	Solar	• Solar Option offered in the AA degree Mechanical Engineering Technology program. Special courses include: - Introduction to Solar Energy Utilization, 2-credit course with focus on solar components, introduction to solar energy, solar domestic hot water, and solar heating. - Solar Systems Design Technology I; 2-credit course with focus on solar systems design, installation/maintenance, and systems testing/evaluation. - Solar Systems Design Technology II 4-credit course with focus on solar systems design and installation/maintenance.	M.H. Ashburn, ext. 29	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Labette Community College Parsons, KS 67357 316/421-6700	Humanities Alcohol	● Participant in Energy and The Way We Live Forums. ● College has offered one-day workshop for farmers on fuel alcohol production.	Gary J. Northam Gary J. Northam	● EWLf material ● Verified 4/8/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Seward County Community College Box 1137 Liberal, KS 67901 316/624-1951	Curriculum Development	● College curriculum development activities include: - Two-year Associate Degree--core curriculum centered around training solar technicians for entry level positions in the construction industry - Short Term Training-curriculum guides in solar technology for continuing education program or infusion in existing related curricula - Community Awareness-curriculum guides to provide conservation and appropriate technology - for public.	Gene Hall, Director of Occupational Education	● 2/80 Response Letter
	Energy General	● Public Service: sponsored 15 seminars to increase the community's understanding of the appropriate technology and the issues and concerns related to the energy dilemma.		
	Facilities Conservation	● Facilities Retrofitting performed an energy audit of facilities and submitted a grant application to the Kansas Energy Office for performing a Technical Assistance Analysis of the facilities.		
	Manpower Assessments	● Manpower Needs: has conducted a survey to determine the projected needs for personnel to install and maintain solar heating systems.		

KENTUCKY



Goldenrod

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Ashland Community College Ashland, KY 41101 606/325-8586	Conservation	● Participant in Energy Conservation Consortium of Colleges - (five) FIVCO area (Boyd, Greenup, Lawrence, Elliot and Carter counties); each college in the consortium is expected to present two topics: (1) Energy Audits for Existing Residential Structures and (2) Energy Conservation in New Construction. The College presented four seminars, which attracted homemakers, women's clubs, home builders, architects, utility companies, and homeowners. Seminar announcements were mailed with local utility bills. The fourth seminar took the form of an Energy Fair. Offered in the fall, 1979.	Julia Carter, Coord. Continuing Educ. and Community Servs Consortium contacts: Jack Cyrus, Eng. & Mathematics; Naomi Christian, Consumer Education	● 1/80 Dean letter response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bowling Green Community College Bowling Green, KY 42101 502/745-3041	Alternatives	● College offers a variety of alternative energy classes and workshops, including: energy audits, energy awareness, conservation, energy management, and solar heating and cooling.	Donald W. Zacharias, President	● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Elizabethtown Community College Elizabethtown, KY 42701 502/769-2371	Energy General Humanities	● College offers classes in energy awareness, conservation, energy management, and solar. ● Participant in Energy and The Way We Live Forums; offered for credit.	James S. Owen, Director	● 1/79 ERTA, TERC ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Hazard Community College Hazard, KY 41701 606/436-5721	Coal	● College offers coal mine technology training programs.	J. Marvin Jolly, Director	● Oak Ridge Coal Report ● Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Jefferson Community College Louisville, KY 40202 502/584-0181	Conservation/ Solar	• College offers a conservation work- shop and a solar energy course.	Ronald J. Horvath, Director	• 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lees Junior College 601 Jefferson St. Jackson, KY 41339 606/666-7521	Coal	• AAS degree program in Coal Mining Technology, with 12 core courses.	Dr. Pierre Allaire, Director	• 1979 Hamilton Report • Verified 4/6/81

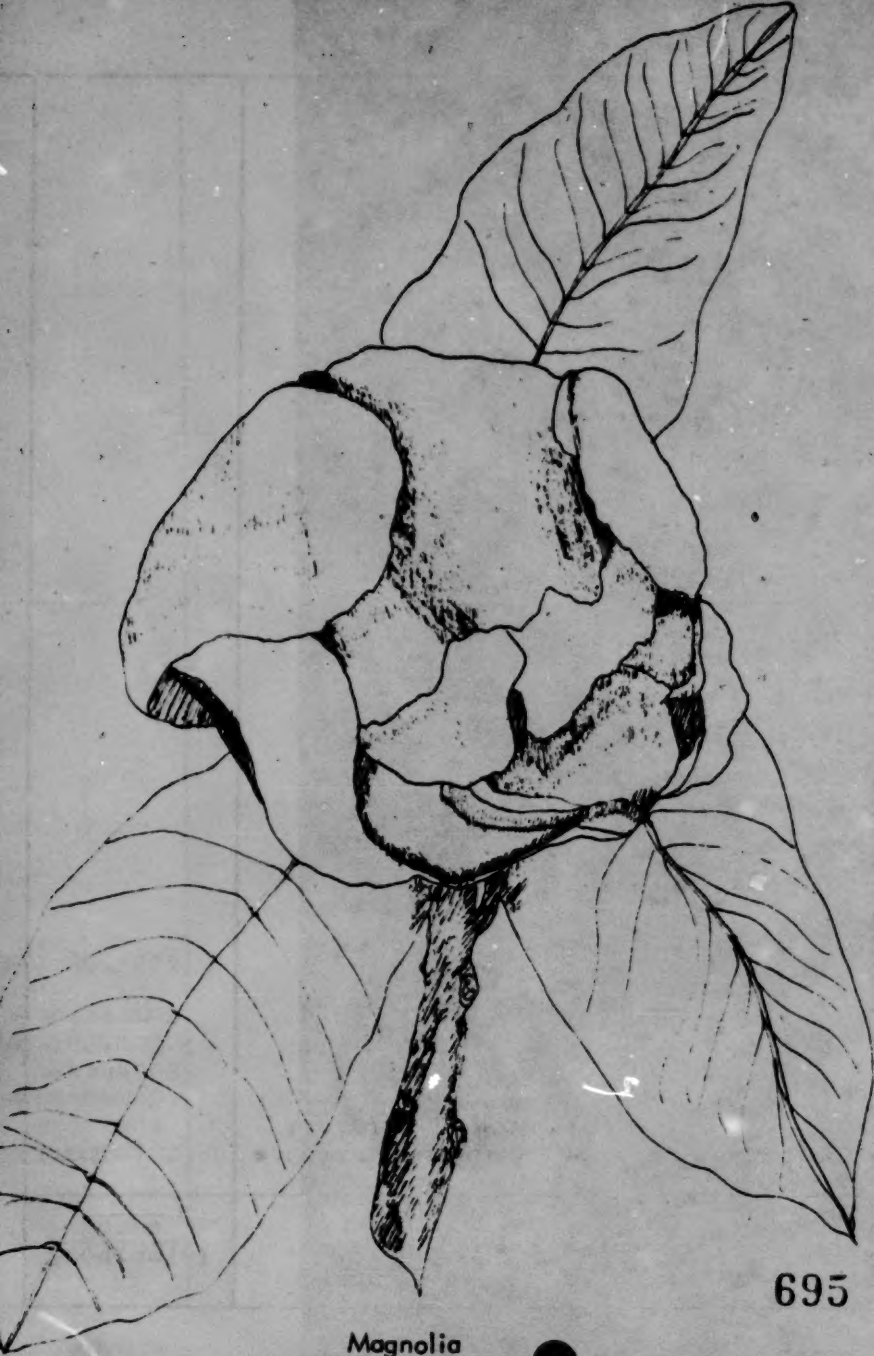
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Madisonville Community College P.O. Box 563 Madisonville, KY 42431 502/821-2250	Coal	● College offers mine technology training programs.	Arthur D. Stumpf, Director	● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Paducah Community College P.O. Box 1380 Alben Barkley Dr. Paducah, KY 42001 502/442-6131	Conservation Solar	● College activities have included: - Home Energy Conservation Seminar: 4 seminars offered for the public on energy conservation measures for residential dwellings. Supported by state DOE. - Solar Collector Water Heater: Physics and Construction Technologies departments built a solar collector water heater, with accompanying instructional program. - Solar Energy Public Demonstration, two public expositions to show the effectiveness of solar energy collector systems. - How to Audit Your Home for Energy Conservation, a videotape produced by the college to demonstrate methods of performing a home energy audit.	James V. Hennessy, Asst. Director Academic Affairs	● 2/80 Reponse Letter
	Humanities	● Participant in Energy and The Way We Live Forums.	Elanor Coffman	● EWLF material
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Donald Clemons, Director	● USDOE Announcement

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Prestonburg Community College Prestonburg, KY 41653 606/886-3863	Humanities Facilities Conservation Solar Retrofitting	● Participant in Energy and The Way We Live Forums. ● College strategies included: lowering overall temperatures in building, using space heaters, and reducing lighting levels; result was more than 30% reduction in energy use. ● Seminar Series, including passive and active solar design and the government's role in solar energy. ● Seminar, through the Continuing Education department a sequence of short seminars in retrofitting and wood burning stoves are offered.	Robert McAninch, ext. 248 Robert McAninch, ext. 248 James Ratcliff, ext. 214	● EWLF material ● AED ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southeast Community College Cumberland, KY 40823 606/598-2145	Humanities Coal	● Participant in Energy and The Way We Live Forums. ● College offers degree program in Coal Mining Technology.	Cathy Whitson	● EWLF material ● EPCG

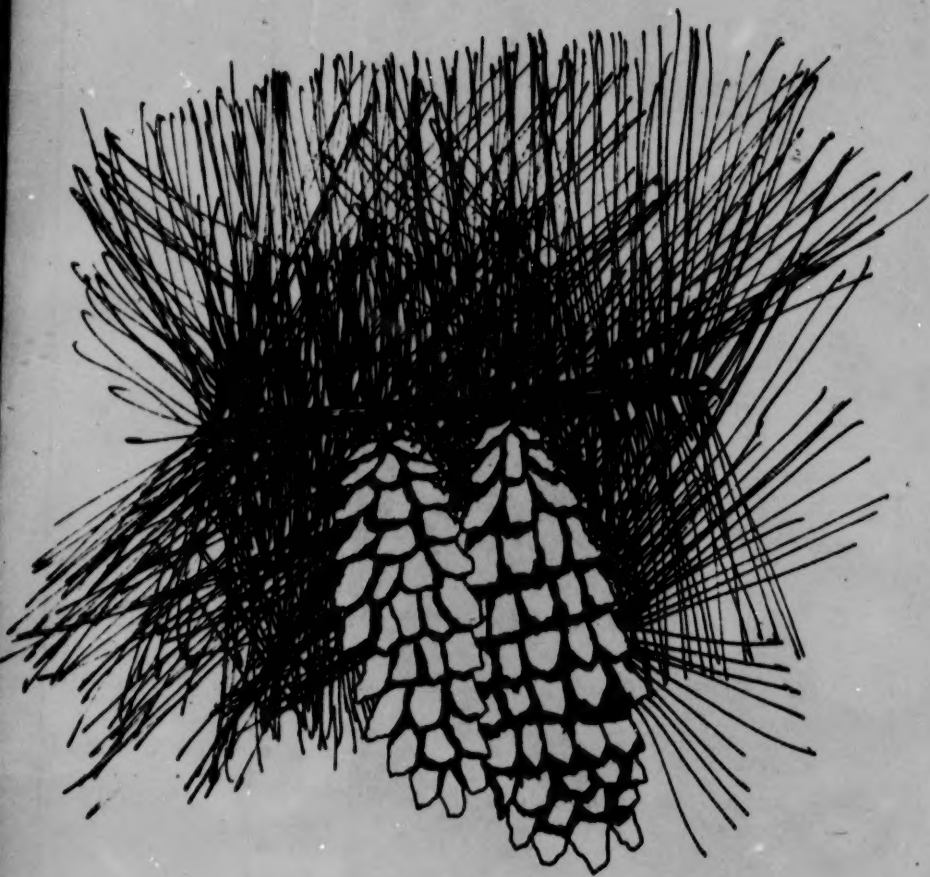
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of Kentucky Community College Southeast Community College Cumberland, KY 40823 606/589-2145	Coal	College offers coal mine technology training programs.	Larry D. Stanley, Director	Oak Ridge Coal Report



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Magnolia

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Delgado College 615 City Park Ave. New Orleans, LA 70119 504/486-7393	Solar	● Applied Solar Energy, Passive Solar Architecture, and Solar Installation Techniques, 3-credit courses offered through the Engineering department. ● Energy Management, 3-credit course offered through the Engineering department; conservation emphasized.	Larry Charbonnet	● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums.	Larry Charbonnet	
	Petroleum	● College offers degree program in Petroleum Engineering Technology.	Tom Ireland	● EWLF material ● EPCG
	Environ- mental Education	● College offers certificate and degree programs in Pesticides and Toxicology, and degree programs in Drinking Water/Wastewater Treatment Technology and Environmental Science/Health.		● Verified 4/13/81



White Pine Cone and Tassel

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Eastern Maine Vocational Tech. Institute 354 Hogan Road Bangor, ME 04001 207/942-5217	Environ- mental Education	• College offers degree program in Coal Mining Technology.	Alan R. Campbell, Director	• EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Maine Vocational Tech. Institute 33 Edgemont Drive Presque Isle, ME 04769 207/769-2461	Alternatives Laboratory	● Alternate Energy Laboratory - research, teaching and public dissemination of all energy criteria alternate in form to petroleum products. Laboratory projects include: - <u>Food</u>: Hydroponic Indoor Garden, 2 Solar Heating Greenhouses, Indoor Gas Working Bee Hives - <u>Energy</u>: Conversion of a V-8 Auto to a 4-V with a valve job, electric bicycle (charged with wind), electric motorcycle, 12-volt wind energy conversion system used to charge batteries (cost \$12.00), 50 foot home-made wind tower w/4000 watt verticle axis (Bead-Board) Rotors. - <u>Solar</u>: Domestic Solar Hot Water System plus home-made domestic hot water system, individual student small solar hot water systems, solar greenhouses, solar wind heaters, solar stirling engine, solar cooking oven, new passive heated earth sheltered conference center to accommodate 70 people around tables (conference center is made of rammed earth). - Lennox Solar Trainers - <u>Physical Plant</u>: New Wood Furnance with graduated extended plenum. Retrofitted physical plant 40 R's ceilings and 21 R's walls. - <u>Environmental</u>: Two working compositing toilets and now building seven new compositing toilets with	Burt Tompkins, Jr. Coordinator, Alternate Energy Laboratory	● 12/79 Survey Response ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Maine Vocational Tech. Institute Presque Isle, ME 04769 <u>CONTINUED</u>		domestic hot water (solar heated) running through a coil in the bottom to heat the mass for the bacteria. All work has been <u>done by students</u>.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southern Maine Vocational Tech. Institute Fort Road South Portland, ME 94106 207/799-7303	Woodstoves	● 1978-1979, delivered a series of Woodstove seminars on campus and at other locations throughout the State. Special emphasis given to safety.	William C. Warren, Dean of Instruction	● 1/80 Response letter
	Solar/ Retrofitting	● Passive Solar Heating and Energy Efficient Housing Design courses have been offered over the past three years. These courses involve techniques required to winterize/ weatherize (retrofitting) existing residences, as well as basic drafting design utilizing passive solar concepts for energy conservation.		
	Conservation	● 36-week Winterization program, under Federal sponsorship, has been offered to train crews in methods of winterizing low income family residences in the community.		
	Solar	● College has been selected as the site for a solar workshop conducted by the Northeast Solar Energy Center, Cambridge, Massachusetts. First step in the development of a solar energy adult education network to develop methods and techniques needed to disseminate energy programming throughout the community.		
	Laboratory	● The Energy Testing Laboratory of Maine was established at the college in 1976 and has developed into a nationally recognized testing laboratory for safety as it applies to heating appliances. Seminars and workshops held on solid fuel safety as it applies to heating		



Black-Eyed Susan

700

MARYLAND

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Allegany Community College Willow Brook Road Cumberland, MD 21502 301/724-7700	Coal	● Coal Mining Technology Curriculum planned for Fall 1980.	W. Ardell Haines, President	● 12/79 Survey Response
	Energy General	● Continuing Education non-credit courses: -Introduction to Chemical Dependency -Basic Hydrology Pond Design -Blasting	J.R. Wales, MD State Board of Community Colleges	
	Humanities	● Participant in Energy and The Way We Live Forums.	Hugh Malamphy	● EWLF material
	Solar	● Industrial Systems I & II offered through Electromechanical department both 3-credit courses with stress on solar systems.	Robert W. Myers	● NSEED '80
	Solar/ Faculty Development	● College is grantee under the 1980 USDOE Faculty Development Education Program; program title is Solar Energy Principles and Installation Procedures; designed as 9-day workshop for 30 high school teachers. Conducted in cooperation with Frostburg State College.	G.R. Plitnik, Dept. of Physics Frostburg State College 301/689-4159	● DOE Announce- ment

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Anne Arundel Community College 101 College Pkwy Arnold, MD 21012 301/647-7100	Energy General	● Applied Energy Technology Curriculum in preparation as option in Mechanical Engineering Technology program, to include: air conditioning, heating, solar energy, and other energy-centered courses.	John D. Palmer, Dean Tech. & Career Educ.	● 6/17/80, Letter
	Appropriate Technology	● Over last several years, college has offered a series of Appropriate Technology seminars/workshops through the Continuing Education department, including Solar Systems and Appropriate Technology.	T. Suman, Science Division B. Bied, Physics	
	Humanities	● Participant in Energy and The Way We Live forums.	Ted Suman	● EWLF material
	Facilities Conservation	● Beginning in 1975, the college has employed a number of energy management procedures which have shown results, the most significant of which was the installation of an IBM Series I Demand Control System in January 1979.	Daniel Walsch Community Relations	● 1/7/80, Letter
	Environ- mental Education	● College degree program in Environmental Studies.		● EPCG

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Catonsville Community College Catonsville, MD 21228 301/455-4182	Energy Management	College has offered an energy management seminar for community residents.		1/79 ERTA, TERC

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Cecil Community College 1000 North East Rd North East, MD 21901 301/287-6060	Alcohol Fuels	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Robert Gell, President	USDOE, OCA Fact Sheet
	Solar	Designing an Energy Efficient Home, 10-contact hour evening course, with focus on conservation, materials, and passive solar systems.	Joe Pezeley 301/287-6060 Brent M. Johnson, MD State Bd for Community Colleges	- NSEED'80 1/7/80 Letter

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Charles County Community College Box 910 Mitchell Road La Plata, MD 20646 301/934-2251	Conservation	● Coordinated national Energy Conservation Workshop for Community College Leaders, in Chicago in 1976; published report. ● With the Potomac Electric Power Company, Southern Maryland Electric Power Cooperative, and the U.S. Energy Research and Development Administration, in 1977 offered a week-long Energy Resources and Conservation Workshop for teachers. As the result of this Workshop, college produced a sequence of videotapes for a course Contemporary Energy Issues: a Multidisciplinary Approach, used extensively in Maryland and Oregon. The course has 17 modules and is accompanied by a study guide. The course has been used to instruct teachers. Taped course available for rental. ● Seminar offered Fall 1978 in Local Government Energy Management, sponsored by Maryland Energy Policy Office.	Belva L. Jensen, Assoc. Dean of Biological Sciences	● 5/21/81 Letter
	Environ- mental Education	● College offers degree program in Wastewater Treatment Technology.	J.R. Wales, State Education Office	● 12/79 Survey Response ● EPCG ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Community College of Baltimore 2901 Liberty Hgts Avenue Baltimore, MD 21215 301/396-0203	Research	● Energy Research Development Technology curriculum planned for Fall 1982.	Rafael L. Cortada, President	● 12/79 Survey Response
	Facilities Conservation	● Renovation of main classroom building to include energy conservation modifications, FY 1979 ● College has proposed a four-day summer schedule for 1980; future proposals include four-day work week between fall and spring semester break, four-day work week year round, consolidated summer school, and evaluation of effective use of space by divisions.	J.R. Wales, State Dept of Education	
	Awareness	● College has offered an Energy Awareness course.	John J. Frey, Jr. Director of Planning	● 1/79 ERTA, TERC
	Humanities	● Participant in Energy and The Way We Live Forums.	Jerry M. Cohen, 301/396-0190	● EWLF material
	Environ- mental Education	● College offers certificate and degree programs in Environmental Science/Health.		● EPCG ● Verified 3/30/81

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Dundalk Community College Baltimore, MD 21222 301/282-6700	Alternatives Solar	• College has offered a variety of non-credit courses, including: - Alternate Energy Sources: Energy Awareness Program, - Solar Energy: Installation/Maintenance, and - Solar Energy for the Layman.	J.R. Wales, State Department of Education	• 12/79 Survey Response
	Solar	• College plans a Solar Energy Technology Curriculum for Fall 1981.		
	Conservation	• Stationary Engineering Technology, a Certificate and AA degree; with stress on operating and maintaining equipment essential to power generation, heating, ventilation, humidity control, and air conditioning in industrial plants, institutions and other building complexes. Segments of the program are offered through the Continuing Education Division for CEU credit.		• 2/80 Response Letter

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Essex Community College Baltimore County, MD 21237 301/682-6000	Conservation Solar Energy General	● Environmental Technical Curriculum scheduled for Fall 1983 ● Solar Engineering Assistant Program scheduled for fall 1980 ● College has offered a series of workshops/seminars through the Continuing Education department, including: - The Crisis: Is It Over? - How We're Using What We Have - Alternative Forums of Energy for the Homeowner - The Politics of Energy: International to Individual - Alternative Energy Sources for Today and the Future - Strategies for Energy Alternatives - What "YOU" Do Now - Conserving Energy Today for Tomorrow - Home Energy Cost-Cutting Clinic - Economics of Alternative Energy Sources	J.R. Wales, Maryland State Board of Education	● 12/79 Survey Response ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Frederick Community College Frederick, MD 21701 301/694-1229	Energy General Facilities Conservation	● College offers series of non-credit Continuing Education courses, including: - Solar Energy and The Home - Heating Equipment Installation - Woodstoves, Installations and Efficiency ● College has conducted facilities audit through engineering consultant firm and, as a result, has: installed an energy monitor computer, replaced foyer door hardware, consolidated scheduling, reduced lighting, replaced standard lighting with energy efficient appliances, and adjusted heating and cooling temperatures to meet federal guidelines.	J.R. Wales, Maryland State Education Department Jack B. Kussmaul, Acting President John H. Larson, Dean of Institutional Services	● 12/79 Survey Response ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Garrett Community College McHenry, MD 21541 301/387-6666	Environ- mental	● College offers Environmental and Renewal Resources Curriculum (Certificate and AA)	Donald L. Ruhl, President J.R. Wales, State Dept. of Education	● 12/79 Survey Response
	Coal	● Credit courses include: - Surface Mine Blasting - Surface Mine Training - Surface Mine Regulation Education		
	Facilities Conservation	● Installed connecting corridors between buildings to conserve energy FY 1979.	Lowell E. Bender	● EWLF material
	Humanities	● Participant in Energy and The Way We Live Forums.		

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Hagerstown Junior College 751 Robinwood Dr. Hagerstown, MD 21740 301/790-2800	Humanities Energy General Solar Consortium/ Materials Developed	● Participant in Energy and The Way We Live Forums. ● The Energy Option in Mechanical Engineering Technology, 2-year Associate Degree program, include: Air Conditioning I, II; Solar Energy; and Alternate Energy Resources. ● A grant from the Maryland Department of Vocational and Technical Education made possible the purchase of solar equipment and texts for the HVAC courses. Courses offered for the first time during the Fall 1980 semester. ● Participant in 3-college consortium (with Allegany Community College and Frostburg State College) sponsored by the Regional Education Service Agency of the Appalachian Regional Commission. A 4-member faculty team from the colleges is working on a solar energy project designed to develop instructional materials suitable for use in solar energy courses.	Frederick Otto George E. Elliott	● EWLF material ● 1/80 Response Letter

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Harford Community College 401 Thomas Run Rd. Bel Air, MD 21014 301/879-8920, ext. 173 301/836-4173	Conservation	- Continuing Education course Energy Conservation for Building Managers and Operating Personnel, designed to enable participants to apply conservation measures to reduce total building energy use; topics include audits, R and U factors, lighting standards and evaluation, air pollution control systems, and HVAC operations and maintenance. - Continuing Education course Energy Conservation and Alternative Energy Sources for Home and Business, focusing on reducing energy bills, energy auditing, calculating costs of energy-saving investments, and alternative sources of energy.	D. Dale Rhodes, Ph.D. 301/836-4173	7/1/80 Letter and NSEED '80
	Greenhouse	Continuing Education course Greenhouse Management emphasizes effective care and maintenance of greenhouse crops; topics include plant identification and care, greenhouse design and construction, environmental systems, diseases, and pest control.		
	Solar	- Continuing Education course Solar Energy and Conservation for homeowners, small businesspersons, architects, and energy-related contractors; instruction includes audits, photovoltaics, wind, lowhead hydro, biomass, solar landscaping, and active solar heating and cooling. - Continuing Education course Principles and Applications of Solar Energy, 48-contact hour course, with focus on solar domestic hot water and solar heating.		

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Harford Community College Bel Air, MD 21014 <u>CONTINUED</u>	Wood Humanities	- Continuing Education course emphasizing the practical aspects of solar energy-alternate energy systems including solar energy, solar hot water and space heating systems, effective conservation measures, and alternate energy sources. - Continuing Education course emphasizing passive solar systems - new home and retrofit construction, solar greenhouses, direct gain, thermal storage walls, types and sources of materials, building costs, construction techniques, and tax credits. - Continuing Education course emphasizing wood energy; wood as a fuel, safety considerations, codes and standards, types of wood burning appliances and systems, safe installations, operational procedures and proper maintenance. - Participant in Energy and The Way We Live Forums.		- SERI - EWLF Material - Verified 3/30/81

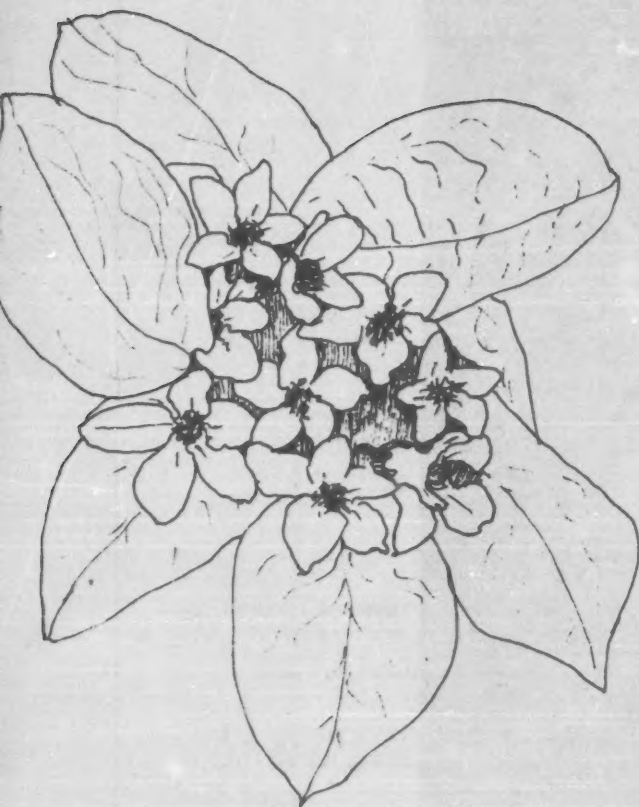
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Howard Community College Little Patuxent Parkway Columbia, MD 21044 301/922-4810	Conservation	- With funding from USHEW/OE, the college and the Foundation for Self-Sufficiency, Inc. produced a text entitled <u>Essays on Food and Energy</u>, a collection of 25 articles stressing energy conservation strategies, including solar energy, aquaculture, gardens, and alternatives; for the classroom and general public use; 1977. - Plans are being made to add a special section on converting old houses into energy efficient homes to "Home Remodeling" course; section will emphasize retrofitting attics, walls, floors, windows, doors, exterior siding and heating and cooling systems; and will focus on masonry, plumbing, electrical wiring and carpentry skills necessary for completing renovation projects and additions.	Lawrence A. Nespoli, Director of Research Planning, and Funding Gerald W. Hubbard Assistant Professor	6/18/80 Letter 4/80 College Press Release
	Facilities Conservation	With the support of a state grant, college will have an extensive audit applied to the campus. Past conservation efforts have included: reducing hot water temperatures; replacing incandescent lights with fluorescent bulbs; closing off all machine and storage rooms and other unused spaces; putting timers on exterior lights; and improving control measures to heat, ventilate and cool one recently renovated building.	Ed Burke, Director of Plant Operations	3/81 College Press Release - Verified 3/30/81

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Montgomery College Germantown Campus 20200 Observation Drive Germantown, MD 20760 301/972-2000	Solar	● College is planning Power Technology option, including solar and wind energy, as part of present Electro-Mechanical Technology Program; hands-on experience for the option will be provided by solar collectors existing on two college buildings. ● College plans solar-wind systems for two modular houses currently used for day-care program.	Frank Hoffstot, Coordinator, Applied Studies Cluster, ext. 218	● 7/15/80 Office Discussion

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Montgomery College Rockville Campus 51 Manakee Street Rockville, MD 20850 301/279-5000	Solar	● Energy - Scientific Aspect, 1-credit course offered through the Physics/Geoscience department, with focus on alternate energy sources.	William Davis 301/279-5232	● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums.	Howard G. Geer	● EWLF material
	Facilities Conservation	● Strategies have included reducing the number of light fixtures, replacing incandescent fixtures with sodium pressure fixtures, and replacing mercury vapor lights in lecture room with fluorescent lamps.	Willard L. Meigs Operations Engineer 301/279-5364	● AED

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Prince Georges Community College 301 Largo Road Largo, MD 20870 301/336-6000	Facilities	● College strategies include: -Installed a vestibule on one set of doors to capture and retain interior heat/cooling; -Timed parking lots/roadway lights to go off during minimal occupancy periods; -Replaced one absorption chiller with a centrifugal unit; and -Close College two weeks at Christmas, heat buildings to minimal 55°.	Robert C. Hardwick, Director of Planning and Administrative Assistant to the President	● 3/80 Response Letter
	Conservation	● Civil Technology and Mechanical Technology programs include various stresses on energy topics and concepts in active and passive energy construction.	Albert C. Zickler, ext. 760 William D. Lauffer, ext. 774	
	Solar	● Solar Heating and Cooling, course included in Mechanical Engineering Technology Curriculum with construction of demonstration model for laboratory usage. ● Built-It-Yourself Solar Systems, 32-contact hour course, non-credit, with emphasis on energy concepts, active and passive solar systems, and systems construction.		
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Bill G. Clutter, 301/322-0787	● EWLF material
	Environ- mental Education	● College offers degree program in Environmental Studies.		● EPCG ● Verified 4/2/81

MASSACHUSETTS



Mayflower
Trailing Arbutus

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bay Path Junior College Longmeadow, MA 01106 413/567-0621	Facilities Conservation	● Installed low pressure sodium lighting in parking lots; reduced wattage in one building from 23,000 to 11,000 watts; installed two high retention burners, three Cleveland Draft controls; locked thermostats; and caulked all buildings. ● Built vestibules on the north and west entrances of some of the buildings for draft control; installed inside storm sliders in some of the dormitories. Tried installing Thermal Add-a-Pane windows in student dining center, which is more than 50% glass, but it didn't work; now in the process of installing thermal pane glass. ● Adjusted heating and cooling temperatures to meet federal guidelines. ● Insulated all outlets on outside walls. ● Most floors and walls are being insulated in older buildings. ● Restrictors were placed in all hot water systems to cut down the flow.	Dominic Calabrese, Building Superintendent	● 6/12/80 Letter ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Becker Junior College Leicester Campus 1003 Main Street Leicester, MA 01524 617/892-8122	Environ- mental Education	College offers degree program in Environmental Studies.	Lloyd H. VanBuskirk, President	EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Berkshire Community College West Street Pittsfield, MA 01201 413/499-4660	Facilities Conservation Solar Environ- mental Education	● Facilities conservation activities currently in progress. ● Energy and Our Society, 3-credit course offered through the Engineering department, with focus on alternative energy sources, solar components, conservation, ocean systems, solar heating, and wind energy conversion. ● College offers degree program in Environmental Science/Health.	Anne E. Wojtkowski Ann E. Wojtkowski	● 12/79 Survey Response ● NSEED '80 ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Blue Hills Regional Tech. Institute 100 Randolph St. Canton, MA 02021 617/828-5800	Solar/ Conservation HVAC	• Solar Heating Systems Design, 3-credit course offered through the Heating, Ventilation, Air Conditioning department, with focus on conservation, energy storage systems, materials, plumbing techniques, home construction, law/legislation, marketing/economic analysis, systems design, installation/maintenance, and testing/evaluation. Other HVAC energy-related courses are: Basic Electricity & Control Theory, 4-credits, HVAC Theory & Hydronics, 5-credits, Heat Gain Theory, 4-credits, psychometrics & Air Dist., 4-credits, HVAC Equipment & Systems Control, 4-credits, and Energy Conservation, 3-credits.	Timothy J. O'Leary, ext. 35	• NSEED '80 • Verified 3/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bristol Community College 777 Fisbree Street Bristol, MA 02720 617/672-1470	Energy General	• Citizens for Citizens, Inc., Energy Referral Office, administered by the college and distributes information on energy-related topics to the community. Major functions are to build an extensive selection of energy-related books, periodicals and audio-visual aids for incorporation in the main college library, available to both students and residents; and to serve as a practical resource center for the community. Working with non-profit organization which has federal funding to support the Office. Office offers information packets on energy topics and access to an energy conservation simulator that permits individuals to assess current and future energy costs and to estimate cost savings through application of various conservation strategies. College is planning to provide information programs for elementary school children and to co-sponsor an Energy Expo this fall.	Elizabeth Bevilacqua Program Coordinator	• 6/11/80 letter •
	Solar	• College offers Energy Systems Technology curriculum through the Engineering department with focus on solar energy.		• NSEED '80
	Environmental Education	• College offers degree program in Drinking Water/Wastewater Treatment Technology.		• EPCG

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Bunker Hill Community College Boston, MA 02129 617/241-8600	Humanities Solar •	• Participant in Energy and The Way We Live Forums; offered for credit. • Issues in Energy, 3-credit course offered through the Science department, with stress on alternative energy sources, conservation, and introduction to solar energy.	Ross Overcash Ross Overcash	• EWLF material • NSEED '80 • Verified 4/10/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cape Cod Community College West Barnstable, MA 02668 617/362-2131	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Energy Systems Technology; Estimator and Sales Technician, AA degree curriculum offered through the Math, Science, Engineering, and Industrial Technology departments, with solar related courses including Survey of Energy Alternatives, Solar Energy I, Solar Energy II, and Solar Energy III; topics include conservation, alternative energy sources, greenhouse techniques, heat and energy transfer, hybrid systems, marketing/economic analysis, systems design, materials, energy storage, and distributed solar power systems. Courses are also offered as CEU's.	Judith Barnett Ted Panitz, ext. 456 Peter F. Birkel, Jr.	● EWLF material ● NSEED '80 ● 6/27/80, Letter ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Dean Junior College Franklin, MA 02038 617/528-9100	Facilities Conservation Environ- mental Education	● Campus maintenance personnel installed a computerized energy management system to reduce costs. ● College offers degree program in Environmental Studies.	Donald C. Laliberte Physical Plant Dir. Department of Mathé- matics and Sciences	● AED ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Franklin Institute of Boston Boston, MA 02116 617/423-4630	Solar/ Alternate	• Solar and Alternative Energy Systems Design, 4-credit course offered in the Energy Systems Engineering Technology program, AAS (with stress on HVAC) with focus on alternative energy sources, appropriate technology, solar components, conservation, energy storage systems, heat and energy transfer, solar heating and cooling, solar energy policy development, solar law/legislation, solar swimming pool heating, and wind energy conversion systems.	William Rowe	• NSEED '80 • Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Greenfield Community College Greenfield, MA 01301 413/774-3131	Humanities Facilities Conservation	• Participant in Energy and The Way We Live Forums. • Over the past several years, the college has applied a number of conservation strategies, including: - lighting: outdoor, parking lot, and sidewalk illumination reduced by 2/3; wattage in lamps reduced; fluorescent fixtures used to replace incandescent ones; reduced classroom light to 60 foot candles; periodically cleaned fixtures; installed photo-cells that automatically turn on lights when area becomes too dark. - heating/cooling: installed computer central control; installed outdoor thermostatic and clock controls on chillers; increased fresh air intakes in the summer and reduced intakes in the winter; established eight separate systems and controlled for level of occupancy at various times of the day; installed two ceiling fans in large lecture hall and one in library; installed 10-ton air conditioner for the computer center, eliminating the need to operate one of the 300-ton chillers in the spring and fall solely for the computer room. - all water heaters shut down during weekends, holidays and vacations.	John Kikoski c/o Ethel Case Nancy Lee Goodwin President Robert DiCarlo, Director Planning and Sponsored Research	• EWLF material • 12/78 Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Holyoke Community College 303 Homestead Ave. Holyoke, MA 01040 413/538-7000	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers degree program in Environmental Science /Health.	David Majeau Paul Raverta	● EWLF material ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Massasoit Community College Brockton, MA 02402 617/588-9100	Solar	• Solar Energy Technology program uses integrated approach with concentration on design and installation of solar systems, and manufacturing involving plumbing, carpentry, electrical, and sheetmetal skills. Energy Conservation is also stressed with an emphasis on home energy audits.	James Tressel	• SOLNET, July 1980 • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Middlesex Community College Bedford, MA 01730 617/275-8910	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Energy, 3-credit course offered through the Math and Science department, with focus on alternative energy sources, conservation, heat and energy transfer, and introduction to solar energy.	John Shane John Shane, Ext. 270	● EWLF material ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Shore Community College Three Essex Street Beverly, MA 01915 617/927-4850	Alternatives	• College offers Adult Education course : -An Alternative Fuel-Wood, designed to teach the basics of wood heating for the "do-it-yourselfer"	James R. Rowell, Director, Community Services	• 2/80 Response Letter
	Conservation	-Energy Conservation Methods for Residences and Small Buildings, designed to acquaint home owners, builders, realtors, and others with the basic concepts of heat loss, insulation, passive solar heating, and its effects on fuel consumption		
	Energy General	-The Business of Energy: Crisis and Opportunity, designed to examine the nature of energy; energy and history; the nature of the energy crisis; the economic implications of the end of the era of cheap energy and the transfers of wealth now occurring; the psychological impact of the above and the choices facing us as a business society; personal, as consumers; commercial, as producers; political, as citizens.		
	Solar	• Fundamentals of Solar Energy, non-credit introductory course tailored to the person who wants to know more about solar energy and its practical applications, deals with theory, concepts, and the application of solar energy to space and water heating; covers principles of heat transfer, collector design, typical heating systems, sizing, selection, and installation of solar system components, miscellaneous application and do-it-yourself solar projects.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Shore Community College Beverly, MA 01915 <u>CONTINUED</u>	Environ- mental Education	● College offers degree programs in Wastewater Treatment Technology, Pesticides and Toxicology, and Drinking Water/Wastewater Treatment Technology.	Essex Agricultural and Technical Inst.	● EPCG ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Essex Community College 100 Elliott Street Haverhill, MA 01830 617/374-0721	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	John D. Dimitry, President	● EWLF material
	Environment	● AAS degree program in Environmental Technology		● 1/79 Hamilton Study
	Solar	● Solar Technology certificate program planned, using CETA funds. ● Solar Energy Seminar, 4-contact hour course offered through the Continuing Education department.	Doris Ritter	● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Quincy Junior College Quincy, MA 02169 617/471-2470	Facilities Conservation	● College participates in Grants Program for Schools, Hospitals, Buildings Owned by Units of Local Government, and Public Care Institutions.	John Browne 617/471-0100	● 12/79 Survey Response from State Office of Energy Resources

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Quinsigamond Community College Worcester, MA 01606 617/853-2300	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers degree program in Environmental Engineering Technology.	Kenneth C. Krikorian	● EWLF material ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Springfield Technical Community College Armory Square Springfield, MA 01105 413/781-7822	Humanities	● Participant in Energy and The Way We Live Forums.	Mary Donovan, ext. 3327	● EWLF material
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Robert Geitz, ext. 3839	● USDOE Announcement
	Solar	● Solar Energy Option in Heat/Power and Air Conditioning AAS degree program, with focus on solar systems installation; systems combinations including solar collectors, thermal reservoir, insulation and back-up burners; and cost-effectiveness of new solar collector technologies.	John Donohue, ext. 3500	● College Catalog
	Environ- mental Education	● College offers degree program in Environmental Engineering Technology.	John Donohue, ext. 3500	● EPCG ● Verified 4/3/81

MICHIGAN



Apple Blossom

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Alpena Community College 666 Johnson Street Alpena, MI 49707 517/356-9021	Humanities Solar Energy Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● Active and Passive Solar Energy; course emphasizing active and passive heating systems, sizing of systems, cost and retrofit considerations. ● Sun Day Symposium, organized by Alpena Community College students. ● Solar Heating Seminar, co-sponsored by Alpena County Energy Program. ● Solar Greenhouse Seminar, co-sponsored by Michigan Solar Energy Association. ● Solar Food Dryer Seminar and Construction Workshop, co-sponsored by Michigan Solar Energy Association and Thunder Bay Food Co-op. ● Continuing Education program, includes workshops and credit courses on woodstoves, alcohol fuel for farms, and local solar energy projects. ● Volunteer internship served by individuals interested in energy planning and solar energy equipment with county energy program. ● Earth Sheltered Housing Seminar, co-sponsored by Alpena County Energy Program. ● Alpena Area Solar Tour co-sponsored by Michigan Solar Energy Association and Alpena County Energy Program.	Richard Clute, ext. 260 Bill Yule, ext. 243 Chuck Wiesen, ext. 235 Tom Kenney, 517/354-4017 Richard Clute, ext. 260	● EWLF material ● Verified 4/10/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Alpena Community College Alpena, MI 49707	Applied Research Development	● Passive solar greenhouse constructed on campus (24 x 12) to establish data on greenhouse operations in Northern Michigan.	Richard Clute, ext. 260	
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bay De Noc Community College Escanaba, MI 49829 906/786-5802	Humanities Solar Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers solar-related certificate program. ● College offers degree program in Drinking Water/Wastewater Treatment Technology.	Lyle Plowman, ext. 71 Edwin E. Wuehle, President	● EWLF material ● 1979 Hamilton Study ● EPCG

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Charles S. Mott Community College 1401 East Court St. Flint, MI 48503 313/762-0200	Conservation	• AAS degree program in Conservation Technology, with 3 core courses and 2 non-credit forums.	Douglas E. Laine	• 1979 Hamilton Study
	Alternative Energy	• AAS degree in Alternative Energy Technology.		• 10/79 NCRD Survey
	Solar	• Solar Heating and Cooling, 2-credit course offered through the Science and Mathematics department, with focus on alternative energy, appropriate technology, energy storage systems, conservation, greenhouse techniques, heat and energy transfer, marketing/economic analysis solar systems design, and installation/maintenance.		• NSEED '80
	Alcohol	• College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuels production, especially on a small scale.	Charles Roche 313/762-0237	• USDOE Announcement
	Humanities	• Participant in Energy and The Way We Live Forums.	Mel Harold 313/762-0469	• EWLF material
	Consortium	• College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use		• Schoolcraft Course Brochure

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Charles S. Mott Community College Flint, MI 48505		modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Highland Park, Jackson, Macomb, Monroe, St. Clair, Washtenaw, and Wayne.		
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Delta College Markinaw Road University Center, MI 48710 517/686-9000	Solar	● Solar Energy Workshop, 1-credit course offered through the Science department, with focus on solar components, conservation, energy storage systems, materials, domestic hot water, and solar systems design. ● Solar Energy: Graphic Fundamentals in Building Design, 4-credit course offered through the Architectural Technology department, with focus on appropriate technology, greenhouse techniques, energy storage systems, heat and energy transfer, and solar home construction. ● Passive Solar Home Design, a mini-course stressing major considerations for home planning to take advantage of the sun's energy. ● Solar collector system, built by solar energy classes, used to heat D-Wing section of administration building on campus.	J. Schuitman M. Whittaker 517/662-9267 Carl Cisky, Chairman Science Department Ralph M. McGivern	● NSEED'80
	Wind	● Wind Generators, course for hobbyists and engineers, with focus on generator designs and problems related to home electricity generation.	Ralph M. McGivern	● EEP
	Alcohol	● The college offers two courses for local farmers, businessmen, tradesmen, and other interested individuals: Principles of Fuel Alcohol (4-credits) combines theory with laboratory experiences in the production and quality-control testing of fuel alcohols. Economics and engine conversion are included. Fuel Alcohol Seminar (1-credit) is a 2-day short course stressing the	Clark Most, Jr. 517/686-9267	● EEP
			Mike Holcomb	● EEP
			Paul Koblas Glen Erickson	● EEP ● Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Delta College University Center, MI 48710		practical aspects of the production and use of fuel alcohol.		
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Glen Oaks Community College Route 1, Shimmel Rd Centreville, MI 49032 616/467-9945	Solar	● Alternative Energy, 3-credit course offered through the Vocational department. ● Solar Energy, 3-credit course offered through the Vocational department, with focus on appropriate technology, solar components, conservation, energy storage systems, heat and energy transfer, materials, solar heating, and solar swimming pool heating.	Wayne Moss, ext. 217	● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums.	Roger A. Coomer	● EWL material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Grand Rapids Junior College Grand Rapids, MI 49503	Energy- General Videotapes	College's Continuing Education department's "Operation: Save America's Valuable Energy" produced two 30-minute videotapes on energy, one is informational, the other is more dramatic.	Lynne Goede	
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Henry Ford Community College Dearborn, MI 48128 313/271-2750	Energy General Consortium	● College offers a variety of energy-related courses including, solar steam, conservation, and ecology. ● College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Highland Park, Jackson, Macomb, Monroe, Mott, St. Clair, Washtenaw, and Wayne.	Stuart M. Bundy, President	● 1/79 ERTA, TERC ● Schoolcraft Course Brochure

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Highland Park Community College Highland Park, MI 48203 313/956-0597	Humanities Consortium	• Participant in Energy and The Way We Live Forums. • College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environmental Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Jackson, Monroe, Mott, St. Clair, Washtenaw, and Wayne.	Edward Garvin	• EWLF material • Schoolcraft Course Brochure

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Jackson Community College Jackson, MI 49201 517/787-0800	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Zoe Wilcox, Ext. 176	● EWLF material
	Conservation Ecology	● College offers course work in conservation and ecology studies.		● 1/79 ERTA, TERC
	Solar	● Solar Heating and Cooling, 1-credit course offered through the Occupational department.		● NSEED '80
	Consortium	● College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Highland Park, Macomb, Monroe, Mott, St. Clair, Washtenaw, and Wayne.		● Schoolcraft Course Brochure ● Verified 4/6/81
	Energy Technology Center	● Knight Energy Institute provides technical training in equipment performance, installation and maintenance in air conditioning, heating and solar energy systems.	Lee Miles	
	Conservation	● Through Operation Gainer, college collects white and colored scrap paper which is sold for recycling.	Lee Howser	

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Kalamazoo Valley Community College 6767 W. O Avenue Kalamazoo, MI 49009 616/372-5000	Humanities Conservation Audits	● Participant in Energy and The Way We Live Forums. ● Energy Audits for Small Business, seminar offered through the Extended Educational Opportunities department in cooperation with the Small Business Council of the Kalamazoo County Chamber of Commerce; topics include energy bill analysis, building heating and cooling loads, ventilation, electrical systems, and transportation. ● Save Money by Saving Energy: Application of the Energy Audit to Small Business, second seminar (as above); topics include weather-stripping, insulating, mechanical and electrical systems, life-cycle costing, and payback period analysis	Community Services Office Dale B. Lake, President R. A. Olivanti 616/372-5255	● EWLF material ● 9/3/80 College News-release ● Verified 4/9/81
	Facilities Conservation	● The College has taken a number of relatively low cost energy conservation measures, such as installing timers, adding insulation, removing excess lighting, reducing boiler operation, and so forth. Since FY 1971-72, the College has reduced natural gas consumption by 62%, and electrical consumption by 45%.	Max Spéalman	
	Conservation Alternate	● Through the Sunday College program, the Building Your Own Home course includes a study of traditional and innovative energy conservation techniques and alternative energy resources, such as active and passive solar and wood in home design and construction.	Helen McCauslin	

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Kalamazoo Valley Community College Kalamazoo, MI 49009	Alternate	• Earth Sheltered Design and Construction is a course covering the current state of the art of earth sheltered design and construction. Topics include site analysis, energy considerations, structural design, waterproofing, insulation and public policy issues.	Kathy Devine	
	Solar	• A seminar on passive solar design, offered as a community service, includes all aspects of passive solar design and its specific application to Southwestern Michigan: design parameters, and the application of direct, indirect, isolated, and hybrid systems are covered.	Kathy Devine	
	Greenhouses	• A seminar focusing on characteristics which separate energy efficient solar greenhouses from their more traditional counterparts. Applications include freestanding and attached structures.	Kathy Devine	
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Kellogg Community College Battle Creek, MI 49016 616/965-3931	Humanities	● Participant in Energy and The Way We Live Forums.	Sadie Bauer, ext. 208	● EWLF material
	Solar	● Solar Energy, 3-credit course ● Solar Project LAB, 2-credit course	Richard F. Whitmore, President Roger Seymour, ext. 244 Robert Seymour, ext. 244	● Verified 4/3/81
	Alcohol	● Alcohol Fuel Production Workshop, 8-hour workshop	William Kelley, ext. 441	
	Construction	● Underground Housing Design, 8-hour workshop	Sadie Bauer, ext. 208	
	Energy General	● Sequence of short workshops in energy resources; audits, insulation wood stoves and furnances, solar, wind and geothermal energy, green-houses, composting toilets, water conservation devices and techniques.	Gary Lemke, ext. 205	
	Facilities Conservation	● College has 4-day summer session, 3-weeks recess late December/early January; replaced parking lot, gymnasium, swimming pool lighting with more efficient types, has constructed "air-lock" entries on buildings and used an engineering consultant on energy conservation.	Adam Drozdowski, ext. 211	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lansing Community College 419 N. Capitol Ave Box 40010 Lansing, MI 48901 517/373-7180	Solar Energy General	● Designed and built a solar home including several forms of solar, huge central wood fireplace, greenhouse, and central atrium. ● College offers Engineering Technician program with solar option. ● Course in Seminars in Special Subjects Program, "To Be Or Not To Be: Energy and Power," developed in the Science Department. Provides an updated account of the technical, political, social, economic and environmental consequences of such energy options as hydroelectric power, solar energy, geothermal heat, wind power, fossil fuels, nuclear fusion and fission. ● Social Science department's "Mother Earth" course examines the social and political effects of the energy crisis on various economic and social factors. ● Interdisciplinary (Science and Social Science) course "Our Energy Crisis," explores the ecological, sociological economic, psychological and political ramifications in terms of what is happening, and what can be done to meet the energy needs. ● Science Department currently is exploring courses on alcohol fuels and other alternatives. ● Course, "Faith, Science and the Future" deals with the broad issue of "Energy, Nuclear and Otherwise."	Cernyw Kline K.L. Humphrey	● 1/80 issue of <u>Openline College</u> publication ● 2/80 Response Letter

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Lansing Community College Lansing, MI 48901	Environment	Humanities Department offers off-campus courses "Care of the Earth" and "Care of the Earth II." Both combine five weeks of lectures and discussions with scientists and theologians on the moral and spiritual responsibility of the care of the earth, as related to the energy crisis and other issues.		
<u>CONTINUED</u>	Humanities	Participant in Energy and The Way We Live Forums. A spin-off from this series will incorporate the theme of "Energy and the Way We Live" into a new course on "Values and Moral Reasoning."	K.L. Humphrey	2/80 Response Letter
	Facilities Conservation	Variety of conservation strategies employed, including physical plant alterations, hiring of energy technician, and providing energy education to students.	Thomas A. Peterson Facilities Tech. 517/373-7173	AED
	Audit	College is developing energy auditor training materials for use in community colleges with the support of a federal grant; materials will cover 80 classroom hours and 16 hours of field training. Teacher training field testing will occur this summer, with regional seminars scheduled for September.	Don Olson, Engineering Technology	Open Line College News-letter, 4/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Macomb County Community College Warren, MI 48093 313/779-7000	Humanities	● Participant in Energy and The Way We Live Forums.	Paul Thacker	● EWLF material
	Solar	● Energy Conservation and Solar Heating 3-credit course offered through the Technical Education department, with focus on alternate energy sources, appropriate technology, bioconversion conservation, energy storage systems, heat and energy transfer, and solar systems testing/evaluation.	William Cooper 313/779-7435	● NSEED'80
	Consortium	● College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Highland Park, Jackson, Monroe, Mott, St. Clair, Washtenaw, and Wayne.		● Schoolcraft Course Brochure
	Environmental Education	● College offers certificate and degree programs in Drinking Water/Wastewater Treatment Technology.		● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mid Michigan Community College 1375 S. Clare Ave. Harrison, MI 48625 517/386-7792	Climate Control	● Climate Control Design course concerned with building envelope design, energy usage within that envelope, and energy systems design.	John E. Hohman, Ext. 294	● 2/80 Response Letter and NSEED '80
	Solar	● Solar Heating Systems, 3-credit course, introduces solar as an alternative source of heating and focuses on active/passive/hybrid solar systems, appropriate technology, conservation, solar components, materials and process heat. ● Solar Project Lab, second course of a series of solar courses; students put together solar systems and augment them.		
	Facilities Conservation	● Energy Advisory Commission at the college. Main objective is to reduce the amount of energy consumed in the buildings.	Larry Derscheid, Ext. 248	● EWLF material
	Alternatives	● Alternative Energy Sources, 3-credit course offered through the Physical Science department, with focus on forms of alternative energy-wind, hydro-electric, solar, geo-thermal, and bio-gas.		
	Humanities	● Participant in Energy and The Way We Live Forums.		
828			829	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Monroe County Community College Monroe, MI 48161 313/242-7300	Humanities Consortium Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Highland Park, Jackson, Macomb, Mott, St. Clair, Washtenaw, and Wayne. ● College offers degree program in Environmental Engineering Technology.	Audrey Warrick, Ext. 227,228	● EWLF material ● Schoolcraft Brochure ● EPCG

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Montcalm Community College Sidney, MI 48885 517/328-2111	Humanities	● College has hosted a 2-day energy fair/symposium; included: exhibits, presentations, involvement of public school students, community forums, and an alcohol fuel still demonstration. ● Participant in Energy and The Way We Live Forums; offered for credit.	Bill Lymangrover, Community Services, Ext. 250	● 1/80 Response Letter ● EWLF material

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Northwestern Michigan College Traverse City, MI 49684 616/946-5650	Solar	• Solar Energy, 4-credit course offered through the Science department, with focus on heat and energy transfer, solar home construction, and systems design.	Peter D. Rush, Dean of Instruction	• 2/80 Response Letter
	Humanities	• Participant in Energy and The Way We Live Forums.	R. Cookman, ext. 453	• NSEED'80
	Petroleum	• Petroleum Engineering Technology and Petroleum Technology, AAS degree programs, designed to provide engineering technicians, supervisory personnel, technicians, assistants, inspectors and other skilled personnel for the exploration, drilling, production, processing, and transportation phases of the petroleum industry.	David Terrell, ext. 529	• EWLF material • Verified 4/2/81
	Energy General	• Energy-related courses offered through the Physical Science department include, Introduction to Physical Science (Energy Sources), 3-credit course with focus on past, present, and future energy use: Introduction to Physical Science (Energy Sources) Laboratory, 1-credit course with focus on energy conversion processes and equipment; Environmental Dilemmas, 4-credit interdisciplinary course with focus on significant environmental problems; and Solar Energy, 3-credit course offering an introduction to solar energy.		

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Northwestern Michigan College Traverse City, MI 49684	Alternatives	● College has offered a sequence of Continuing Education workshops/seminars in cooperation with other organizations, including: Wood Combustion Planning Conference (with the Mid-American Solar Energy Complex), 2-day meeting designed for facilities managers, and Do-It-Yourself Solar Heat (with Jordan College), 2-day meeting, with focus on solar collectors, heat transfer, solar system construction, solar hot water, solar swimming pools, and economic analysis. College is planning to start a series of seminars (1-day), beginning with motel operators to offer instruction in conservation strategies. College Observatory project will include an Alternative Energy Lab.		
<u>CONTINUED</u>	Solar	● College is planning a Solar Energy Technology curriculum for 1981-82.		
	Facilities Conservation	● College has hired a consultant firm to conduct a comprehensive energy audit. A wood-burning plant for co-generation of heat and electricity is planned for the future. A car-pooling system has been devised for student travel.		

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Oakland Community College Highland Lakes Campus 7350 Cooley Lake Road Union Lake, MI 48085 313/363-7191	Facilities Conservation	In-house efforts include: reduced temperatures in buildings to 65°, campus station and/or van are used for field trips, and student activities office has set up a car pool for students College's new campus in Southfield features earth-integrated, energy-saving construction.	Dr. Christine E. Gram Academic Dean	1/80 Response Letter
	Humanities	Participant in Energy and The Way We Live Forums with stress on promotion of energy conservation.	Christian Noordhoom	3/81 Letter
	Energy General	Working on proposed courses and/or programs for training energy technicians in the future.		EWLF material

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Saint Clair County Community College 323 Erie Street Port Huron, MI 48060 313/984-3881	Energy General	- College offers AA degree program in energy in cooperation with Jordan College; three semesters are spent at college and the final semester at Jordan College. College special courses include: - Introduction to Energy, 3-credit course with focus on a review of world energy resources and management problems, including federal legislation, conservation, economics, safety, and environment. - Energy Auditing for Residential and Light Commercial, 1-credit course, with stress on determining the energy efficiency of existing or planned buildings or houses. - Synthetic Fuels, 1-credit course, with emphasis on theory, design, and demonstration of solid fuel gasification principles. Demonstrations include a 1977 chevy van powered by biomass and an electrical generator powered by biomass. - College has been involved actively in publicizing national/local energy circumstances through participation in energy fairs, media discussions, and energy technology demonstrations. Special emphasis has been placed on strategies for energy self-sufficiency.	Phil Zochowski, Industrial Technology Dept.	2/80 Survey Response
	Energy Laboratory	Energy laboratory is completed; will accommodate demonstrations in hot air, solar hot water, heat storage,	000	

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Schoolcraft College 18600 Haggerty Rd. Livonia, MI 48151 313/591-6400	Petroleum	● College offers AAS degree program in Petroleum Technology.	C. Nelson Grote, President	● 1979 Hamilton Study
	Conservation	● College provides energy conservation information in all courses in the Architectural/Building Construction Technology associate degree and certificate programs, Heating and Refrigeration certificate programs and in the Climate Systems Technology associate degree program.	Fernon Feenstra, Assistant Dean, Technology	● 1/80 Response Letter
	Conservation Solar	● College has offered energy conservation seminars through SEMTAP including: Solar Heating and Cooling Systems: Analysis, Design, Installation, Maintenance, and Operation; and Energy Conservation Technology. And with Jordan College, Here Comes the Sun, 2-day seminar on do-it-yourself solar heat.		
	Facilities Conservation	● Conservation strategies include: - Restructured college course offerings to vertical-block scheduling - shifted entire programs to specific campuses to reduce commuting - combined courses into certain specified buildings on weekends-adjusting heating and cooling systems to conserve energy		
	Solar	● Energy, Man and the Future, 4-credit course offered through the Physics department, with focus on alternate energy, conservation, appropriate technology, heat and energy transfer, wind conversion	John Lesko, ext. 522	● NSEED'80

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Schoolcraft College Livonia, MI 48151 <u>CONTINUED</u>		systems, solar heating, and solar systems design. • Going Solar--A Practical Approach, 16-contact hour course offered through Community Services department, designed to answer questions about residential applications; topics include: solar basics, current solar devices and windmills, active and passive systems, and home energy conservation measures. Students seek out solar "doers," visit a solar home, calculate the amount of energy used in their homes for heat and hot water and submit a plan for adapting their own residences to solar energy usage at the end of the course.	Betty Andrews, ext. 409	• Verified 4/22/81

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Southwestern Michigan College Cherry Grove Road Dowagiac, MI 49047 616/782-5113	Solar	● Solar Energy, 2-credit course offered through the Science and Continuing Education departments, with focus on solar domestic hot water, solar heating, and solar systems installation/maintenance.	Wesley L. Muth, Dean of Continuing Education, ext. 58	● NSEED'80
	Energy General	● Energy Resources and Use, 3-credit course offered through the Engineering department, with focus on fossil fuels, electricity, transportation, agriculture, hydroelectric, nuclear fission, nuclear fusion, wind, oceans, geothermal, wastes, solar, conservation, economics, and policy. Originated from USDOE Faculty Development Program workshop conducted by Grand Rapids Junior College, summer 1980.	William B. Haidler, Asst. to President for Engineering, ext. 39	● 1/81 Letter ● Verified 4/2/81
	Alcohol	● Alcohol: An Alternative Energy Fuel, 2-credit course offered through the Science and Continuing Education areas, concentrating on small scale production of ethanol alcohol and modification of IC engines to use ethanol alcohol as a fuel.	Wesley L. Muth	

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Washtenaw Community College Ann Arbor, MI 48106 313/973-3300	Consortium	College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Highland Park, Jackson, Macomb, Monroe, Mott, St. Clair and Wayne.	Gunder A. Myran, President	Schoolcraft course brochure

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Wayne County Community College Detroit, MI 48201 313/496-2500	Consortium	College participates in Southeastern Michigan Technical Assistance Program (SEMTAP) with 9 other community colleges and Environment Research Institute of Michigan (ERIM) in a technology transfer network. The initial focus of the network was energy conservation, with each college establishing an Energy Conservation Center to provide training and technical assistance to help local businesses, homeowners, and governments learn about and use modern energy conservation technology. Other participating colleges include: Schoolcraft, Henry Ford, Highland Park, Jackson, Macomb, Monroe, Mott, St. Clair, and Washtenaw.	Richard Simmons, Jr. President	Schoolcraft Course Brochure
	Alternatives	College offers energy conservation and solar courses.		1/79 ERTA, TERC



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Albert Lea AVTI 2200 Tech. Drive Albert Lea, MN 56007	Conservation	• Community education workshop on weatherization.	Roger Olson, Adult Director	• 2/80 Survey Response

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Alexandria AVTI Alexandria, MN 56308	Energy General	- Community education courses on energy issues for home and for schools. - One week devoted to workshops and demonstrations as they relate to energy. Each evening covered a different subject. Also included during three days and nights were displays and demonstrations in the school gym.	A.A. Paciotti, Adult Director	2/80 Survey Response
	Conservation Management	- Conservation course. - Management course.		1/79 ERTA, TERC
	Audit	Audit course to prepare students to take the state energy residential exam. Also, for Real Estate Cont. Ed. Credit.	A.A. Paciotti, Adult Director	Verified 4/6/81

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Anoka AVTI Anoka-Hennepin School District Eleven 1355 West Main Anoka, MN 55303 612/427-1880	Conservation	• Community Education courses and workshops covering energy topics for the homeowner: • Energy Conservation is also taught in the Building Elec. and Mech. Maintenance Program, Architectural drafting, Electrical programs and Electrical Design. They are taught as units within the full time postsecondary programs; for partial credit. • Home Energy Audit, 30-hour, non-credit courses for realtor certification are taught on a 30-hour per week basics.	Howard Rosenwinkel, Director	• 2/80 Survey Response
	Solar	- Solar Energy Systems, 28-hour, non-credit course for tradesmen and homeowners, stressing overview of alternative energy systems, passive and active systems, collector types, and construction and maintenance, storage, sizing, tax credits, contractor selection, and funding source.		• 5/16/80 Survey Response • Verified 4/2/81
	Wood	- Heating With Wood, non-credit course for homeowners, concentrates on energy sources, principles and styles of stoves, heating and insulation values, chimneys, combustion, heat storage, and safety controls.		
	Greenhouse	- Solar Panel Construction, non-credit course for the homeowner, focuses on greenhouse construction, types of solar collectors, constructing a system, and uses.		

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Anoka AVTI Anoka-Hennepin School District Eleven Anoka, MN 53303	Automotive Energy General	- Increasing Gas Economy--Fact or Friction, non-credit course, uses display equipment to cover concepts helpful in doubling or tripling gasoline mileage. - Additional non-credit courses include: Saving Energy for Consumers, Weatherstripping and Caulking Windows and Doors, Insulation--Retrofit, and Ventilation--Vapor Barriers. (All of these courses are offered through the Evening School.)		
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Anoka-Ramsey Community College 11200 Mississippi Blvd., N.W. Coon Rapids, MN 55433 612/427-2600	Energy General	● Energy Issues and Solutions, 3-credit course offered through Natural Science department; discussion of traditional fuels and associated issues, with focus on energy policy and Minnesota energy problems; evaluation of alternative energy sources.	Edwin F. Streed, Assoc. Dean of Instruction	● 12/79 Survey Response
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Ann Sidoti, ext. 124	● EWLF material
	Solar	● Community education services on solar energy. ● Application of Solar Energy, 3-credit course offered through the Engineering department; topics include solar components, heat and energy transfer, introduction to solar energy, solar heating, and solar systems design.	Curtis L. Austin	● NSEED '80

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Austin Community College 1600 8th Ave., N.W. Austin, MN 55912 507/433-0516	Energy General	• New courses on energy issues and technology.	James Flannery, Dean of Instruction	• 2/80 Survey Response
	Earthshelter Humanities	• Public seminars on earth sheltering. • Participant in Energy and The Way We Live Forums; offered for credit.	Rita Sand	• EWLF material
	Solar	• Building for Energy Conservation, 3-credit course offered through the Building Trades department, with focus on heat transfer, conventional construction, passive solar space heating and cooling, solar systems, and construction and installation of solar systems.	Michael Roark Dept. Head, Building Trades	• 10/14/80 Letter
	Environmental Education	• College offers Environmental Studies degree program.		• EPCG
	Alcohol	• In depth instruction on facility design, cooking, fermenting and distillation of alcohol, feeding distillers grains and solubles, utilization of alcohol and financial analysis. Hands-on experience will be provided in operating a small farm-sized still.	James Flannery	• Verified 4/3/81

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Bemidji AVTI Grant Ave. and Roosevelt Road Bemidji, MN 56601	Conservation Alcohol Audit	● College offers weatherization workshop. ● One-day seminars on alcohol production, Utilizing Wood or Grains. Still set up and production techniques are emphasized. ● Training program for Energy Auditors -Residential/Commercial.	Tom Langan, Adult Director	● 2/80 Office Response ● Verified 4/3/81

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Bethany Lutheran College Mankato, MN 56001 507/625-2977	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● The College has conducted a mini-audit. Has installed energy efficient boiler burners, constructed double doors in some areas, changed some lighting to more energy-efficient light, has tried to maintain lower temperatures in the winter, and added the gym to the central heating system.	Mary Birmingham Dennis O. Natvig	● EWLF material ● Verified 4/7/81

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Brainerd Community College Brainerd, MN 56401 218/828-2525	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums; offered for credit. ● College covered one-half of the total number of single-pane windows with heat retaining materials to reduce heat loss by 35%.	John DeVries Curtis S. Murton, President	● EWLF material ● AED

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Canby AVTI Highway 68, W. Canby, MN 56220	Conservation Alcohol	• College has conducted energy conservation courses. • Institute offered three one-week seminars on alcohol fuel production, winter 1979-80.	Dewain L. Englund, Director	• 1/79 ERTA, TERC • Verified 4/10/81

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Detroit Lakes AVTI Highway 34 East Detroit Lakes, MN 56501 218/847-9261	Co- generation	9-month Electrical Co-Generation (Total Energy) course, focusing on effective production of electricity and heating and cooling air from one fuel source. Students are in training 6 hours per day, 5 days per week. Typically, graduates are employed as electrical co-generation operators in large shopping centers, schools, hospitals, office buildings, and manufacturing concerns. Students are trained to tune, maintain and operate large stationary engines, heat recovering units, generators, climatizers, and electrical switch gear.	Al Ladeen, Instructor	2/80 Survey Response from State Energy Office and 5/29/80 Letter with brochure

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Eveleth AVTI Highway 53 Eveleth, MN 55734	Conservation	● College offers series of conservation courses.	Edward F. Russ, Director	● 1/79 ERTA, TERC

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Fairbault AVTI 1225 S.W. 3rd St. Fairbault, MN 55021	Conservation and Alternatives	College offers Adult Education courses in energy conservation and alternatives.	Nathan Johnson, Adult Director	2/80 Survey Response and 1/79 ERTA, TERC

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Fergus Falls Community College Fergus Falls, MN 56537 218/736-7544	Energy General Wood Humanities	● Energy, 4-credit, quarter course offered through Natural Science curriculum, focuses on survey of current conditions and trends in energy resources, consumption, production, and alternatives. ● Non-credit community education seminars on wood burning with emphasis on safety, installation, models, city codes, types and sources of wood, maintenance, and precautions ● Participant in Energy and The Way We Live Forums.	C.J. Heine, Dean of Instruction Clarence Heine	● 2/80 Survey Response from state energy office and 5/22/80 Letter ● EWLF material

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Golden Valley Lutheran College 6125 Olson Highway Minneapolis, MN 55422 612/542-1216	Facilities Conservation	College is maintaining buildings at 65° (winter), memos to personnel and meetings to gain cooperation in response to lower room temperatures; installing double-glazed windows; constructing vestibules to protect "single door" exits, and studying heat equipment.	R. Helgeran, Business Manager	12/79 Survey Response
	Humanities	Participant in Energy and The Way We Live Forums.	Alton C.O. Halverson	EWLF material

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Granite Falls Area Vocational-Tech. Institute Granite Falls, MN 56241	Conservation	College has heating and ventilation energy conservation requirement in Plant Maintenance Mechanic program.	Elroy Burgeson, Director	• 2/80 Survey Response from State Energy Office

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Hibbing AVTI 2900 E. Beltline Hibbing, MN 55746 218/262-3877	Humanities Conservation	• Participant in Energy and The Way We Live. • College offers a conservation course.	Myron Schmidt	• EWLF material • 1/79 ERTA, TERC

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Hutchinson AVTI 200 Century Avenue Hutchinson, MN 55350 Adult Education Department 30 N. Glen Street Hutchinson, MN	Energy General	• Institution offered in 1979 a series of non-credit adult energy education workshops, including: - Solar Energy - Insulation: Retrofit - Ventilation and Vapor Barriers - Insulation: New Construction - Doors and Windows - Energy Basics and How to Choose a Contractor - Woodburning Safety - Home Energy Audit - Passive Solar Energy Classes were developed by Rochester AVTI under a grant from the Minnesota Department of Education with cooperation from the Minnesota Energy Agency and other organizations.	Margaret Olson	• 2/80 Survey Response and 5/21/80 Letter from the State Energy Office • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Inver Hills Community College 8445 College Trail Inver Grove Hghts, MN 55075 612/455-9621	Humanities Conservation	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers 3-credit course Building For Energy Conservation in Building Inspection AA degree program, with focus on energy saving principles in construction.	Dan Lindeken Dr. Jerry Isaacs, Dean of Instruction	● EWLF material ● 2/80 Survey Response

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Lakewood Community College 3401 Century Ave. White Bear Lake, MN 55110 612/770-1331	Humanities General Conservation	• Participant in Energy and The Way We Live Forums. • 4-credit course Energy Concepts offered through Natural Science department, with focus on alternate energy, bioconversion, conservation, and passive solar systems. • Energy Conservation Technology, AAS program will begin fall 1980; courses will include: Minnesota Energy Code, 3-credits; Energy Information Resources, 1-credit; Self Energy Audit, 1-credit; Alternative Energy Sources, 3-credits; and Energy Innovation for New Construction, 3-credits. Program conducted in cooperation with 916 AVTI in White Bear Lake. • College has sponsored public forums, including: Responses to the Energy Crisis - Symposium 1977; and Earth Sheltered Housing - Conference 1979. • College has implemented in-house conservation activities.	Richard Sanders Richard L. Sanders Robert Wischmann Carl E. Gerber, President	• EWLF material • 2/80 Response Letter and NSEED'80 • 11/80 <u>Energy Source</u> News letter

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Mankato AVTI 1920 Lee Boulevard North Mankato, MN 56601	Energy General	● College offers Adult education workshops in commercial and industrial energy management, weatherization, alternative energy sources, and home energy conservation. Programs include:	Dan Kocer, Adult Director	● 2/80 Survey Response
	Alcohol	- Course that will give the participant information and hands-on experience in producing alcohol and engine conversion. Information is also given.		● Verified 4/3/81
	Solar	- Course on how to build and install a hot air solar collector for the home using readily available materials and basic hand tools.		
	Wind	- Workshop on the potential and feasibility of wind generation, types of generators, towers, site locations, zoning and cost feasibility.		
	Earth Sheltered	- Seminar on design, construction, waterproofing, insulation placement as well as financing and cost effectiveness of earth shelter housing.		

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Minneapolis AVTI 1101 Third Ave., S Minneapolis, MN 55404	Energy General	College offers Adult Education energy management conservation workshops for homes including code requirements, conservation measures, energy economics, and alternatives.	Wayne Nelson, Asst. Director	2/80 Survey Response

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Minneapolis Community College 1501 Hennepin Ave. Minneapolis, MN 55403 612/341-7061	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit. Program offered a sequence of 10 discussions with titles which included: - The Sources of Concern: Crisis or Problem? - The Search for Solutions - Growth Through Energy: The American Past - Energy and the Good Life - Energy: Patterns of Living and Working - Energy and Our Political and Economic Institutions - Energy...With Justice for All - Energy: Decisions and Trade-Offs - Energy Self-Sufficiency and Global Interdependence - Future Options for Minnesota	Walker Cullen, Assoc. Dean of Instruction 612/341-7022	● 1/80 Response Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Moorhead AVTI 1900 28th Ave., S. Moorhead, MN 56560	Energy General	● College offers Adult Education workshops in home weatherization, alternative energies, home heat management, and waste heat recovery.	Rose Andersen, Adult Director	● 2/80 Survey Results

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
916 AVTI 3300 Century Ave., North White Bear Lake, MN 55110	Energy General	● Institute offers Adult Education courses in energy for structure and transportation code requirements, alternatives, and home and commercial auditing.	Frank Quisenberry, Adult Program Coord.	● 2/80 Office Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Normandale Community College Bloomington, MN 55431 612/830-9300	Energy General	● College Physics courses include focus on generation, transmission, and conversion of energy.	Greg Geer, Instructor	● 2/80 Office Response, State Energy Office
	Humanities	● Participant in Energy and The Way We Live Forums.	Mary Ellen Lynch	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Redwing AVTI Pioneer Road and Highway 58 Red Wing, MN 55066 612/388-8271	Solar Wind Conservation Alternate Biomass Conservation	● College offers a series of 18-month certificate programs in: - Solar Energy Technology - Wind Energy Systems - Energy Conservation Technology - Alternative Energy - Biomass Energy ● Through Adult Education department, college offers workshops in alternative energies and conservation. ● College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.	Pat Enz	● 2/80 Survey Response from State Energy Dept. ● CORD material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rochester Area Vo-Tech Institute 1926 Second St., S.E. Rochester, MN 55901 507/285-8645	Energy General	• Institute, through a grant from the Minnesota State Department of Education, has developed a series of Adult Consumer Energy Education modules in slide/script format, including: - Energy Basics - Insulation-New Construction - Insulation - Retrofit - Ventilation - Vapor Barriers - Doors - Windows - Weatherstripping - Caulking - How to Choose a Contractor - Passive Solar - Active Solar - Window Treatment (new 6-81) Several modules will be updated in 1981-82. • In cooperation with Minnesota State Department of Education and the Minnesota Energy Agency, Institute has developed an in-service workshop for adult education administrators on marketing energy education programs. The program is titled. "Do a little homework ... sell your energy education program." Related materials have ideas and examples on various forms of media along with actual layouts for brochures, newspaper ads, etc.	Jeanne Brownback Energy Specialist W.E. Weiser, Adult Voc. Administrator William E. Weiser	• Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rochester Area Vo-Tech Institute Rochester, MN 59901	Wind	• Wind Power Energy Alternative for the Upper Midwest is a conference and exposition co-sponsored annually by Rochester AVTI, Alternative Sources of Energy, MASEC, and SERI including presentations by national authorities on wind energy and exhibits by major wind equipment manufacturers. • Institute has developed a six-hour course for consumers on "Wind Energy." This program covers the various issues to be considered prior to the purchase of wind power equipment. Rochester AVTI has provided this program at several Minnesota locations.	Jeanne Brownback William E. Weiser Jeanne Brownback William E. Weiser	

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rochester Community College Rochester, MN 55901 507/285-7210	Solar/ Conservation	● Residential Solar Heated Earth Sheltered Homes, 16 contact-hour general education course in "Our Energy Problems," a series of courses on new building codes and their relation to energy conservation; offered through Community Services department.	Veryln W. Heldt, Ed.D., Dean of Instruction Irv Plitzuweit 285-7220 Cortland Frye, Dean of Continuing Educ.	● 1/80 Response Letter
	Facilities Conservation	● Included in college retrofit plans are: use of mini-computer to automatically control heat consumption and condense evening scheduling		● 2/80 Survey Response
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Cortland Frye, Jr.	● EWLF material
	Solar	● Advanced Solar Energy for the Homeowner, 3-credit course offered through the Civil Engineering Technology department.		● NSEED'80 ● Verified 4/14/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
St. Cloud AVTI 1540 Northway Dr. St. Cloud, MN 56301	Conservation Environ- menta Education	● College offers Adult Education seminars on energy conservation. ● College offers degree program in Drinking Water/Wastewater Treatment Technology.	Cornelius Votca, Adult Coordinator	● 2/80 Response Letter ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Saint Paul Technical Vocational Inst. 235 Marshall Ave. St. Paul, MN 55102 612/221-1335	Solar	● Construction Technology, Industrial Controls, and Steamfitting- Pipefitting certificate programs offer solar study option. ● Energy Code for Building Inspectors, Contractors, and Tradesmen, 30-contact hour course offered through the Construction Technology department, with focus on conservation, heat and energy transfer, and materials. ● Solar Energy: 36-hour evening course emphasizing the integration of solar with new and re-built architecture. Other alternate energy systems covered in general, including photovoltaics. Also, methods of solar installation and cost estimates are stressed.	George Richter, 612/221-1320 John Goulet, 612/221-1321 Robert Nelson 612/221-1307 George Richter	● NSEED'80 ● Verified 4/3/81
	Energy General	● One year full-time Electro-Mechanical Technology program teaches contemporary practice in installation and service of heating and cooling equipment and controls. ● One year full-time program in steamfitting/pipefitting, develops skills for installation and service of contemporary energy plants.	John Goulet	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Suburban Hennepin County AVTI 1820 N. Xenium Lane Minneapolis, MN 55441	Energy General	• College offers a variety of courses in awareness, conservation, management and solar.	Director	• 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Thief River Falls AVTI Highway One E. Thief River Falls, MN 56701	Conservation	• Institute offers Adult Education courses and workshops for industrial and commercial buildings superintendents, realtors, in the State Code, and conservation.	Terry Lemer, Adult Director	• 2/80 Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Vermilion Community College Ely, MN 55731 218/365-3256	Energy General	● College offers Physical science course on energy sources, use and environment.	Ray Kenney, Dean of Instruction	● 2/80 Survey Response from State Energy Office
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material
	Environ- mental Education	● College offers degree program in Water/Wastewater Treatment Technology.		● EPCG ● Verified 4/6/81

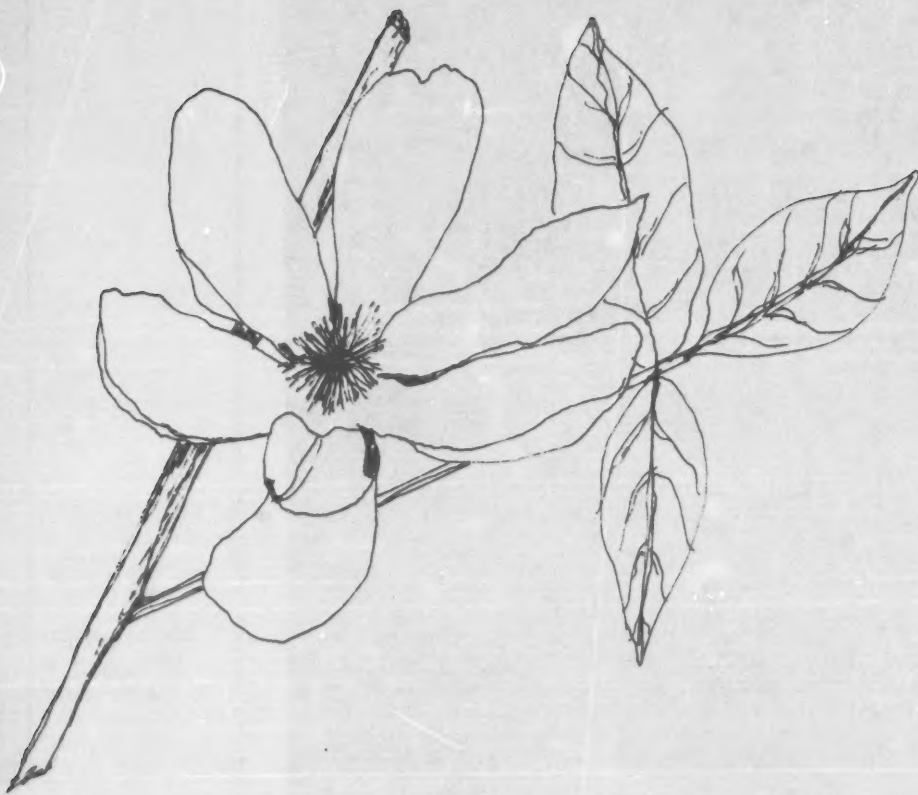
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wadena AVTI 405 S.W. Colfax Wadena, MN 56482	Alternatives Conservation	• College offers woodheating workshop and workshop in home energy conservation.	Jim Baymler, Adult Director	• 2/80 Survey Response from State Energy Office

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Willmar AVTI Box 1097 Willmar, MN 56201 612/235-5114	Energy General	● College offers variety of energy courses including: - Adult Education workshop on building solar collectors - Energy and Environment course in Ag-Economics program - Building and Energy Code course in carpentry program	Michael T. Cullen Director	● 2/80 Survey Response from State Energy Office

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wilmar Community College Wilmar, MN 56201 612/235-2131	Humanities Energy General	● Participant in Energy and The Way We Live Forums. ● Videotape- The Forgotten Fundamentals of the Energy Crisis - shown to college personnel and to local city and county officials.	John W. Torgelson, President Bert Phillips John W. Torgelson, President	● EWLF material ● Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Worthington Community College P.O. Box 107 West Lake Avenue Worthington, MN 56187 507/372-2107	Conservation	● College offers: - Issues and Conservation, 3-credit course with focus on total oil production, present oil exploration, home retrofitting and car pooling - Issues In The Environment, 4-credit course takes a broad look at the environmental issues and explores in depth some environmental problems in southwest Minnesota	Dale R. Carlson, Dean of Instruction	● 1/80 Response Letter
	Environ- mental Education			
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Kenneth Swift	

MISSISSIPPI



Blossom of the Southern Magnolia Tree

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mississippi Gulf Coast Junior College Jackson County Campus Gautier, MS 39553 601/497-4313	Nuclear	● College offers Nuclear Radiation Control Technology program, AAS degree, 2 years.	Curtis L. Davis, Executive Dean	● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
NE Mississippi Junior College Bonnevillle, MS 38829 601/728-7751	Energy Information Center	As member of the North Mississippi Environmental Education Consortium, college serves as regional center for environmental and energy education, a cooperative program with the Tennessee Valley Authority. From 12 to 17 higher education institutions will be involved eventually, for the purposes of: teacher training, regional service, program development and research. TVA provides matching funds for activities.	Hilda Hill	Information Flier

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwest Mississippi Junior College Highway 51 North Senatobia, MS 38668 601/562-5262	Alternatives	College is implementing a comprehensive energy system using only renewable sources. Included in the system are: photovoltaics; solar pond; woodburning biomass combuster to produce steam for campus heating and drive an electric generating turbine for back-up to the solar system, the primary source for electricity; experimentation with forestry management to produce wood on a short term. Excess electricity from system is directed to the utility grid and later drawn out on a one-for-one exchange. The system provides energy for the 50,000 square foot facility. Programs receive significant funding from both the federal (\$7.7 million from USDOE) and state governments. Project purpose is to make the college totally energy self-sufficient.	Henry B. Koon, President	12/79 Survey Response from State Energy Office - TEAM, Inc brochure - PE, NCRD
	Alcohol	College is grantee in the USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuels production, especially on a small scale.	William Oakley	USDOE Announcement
	Solar	Solar and Environmental Engineering, AAS degree program offered through the Science department, with focus on solar energy education, energy administration/policy, scientific research and development in solar energy, and engineering-solar specialization. Courses include:	J.D. Ross, ext. 227	NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwest Mississippi Junior College Senatobia, MS 38668		- Fundamentals of Solar Energy, 3-credits - Solar Devices, 3-credits - Solar Energy I and II, 3-credits each.		
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Hawthorn

MISSOURI

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Crowder College Neosho, MO 64850 417/451-3226	Solar	● Basic Solar Design, 3-credit course ● Basic Solar Lab, 2-credit course ● Advanced Solar Lab, 2-credit course ● Owner-Built Home, 6-credit course		
	Alternate	● Alternative Energy, 3-credit course ● Alternative Energy Lab, 2-credit course ● Organic Cultivation, 3-credit course ● Alternative Energy and Lifestyles Program with stress on passive solar heating ● Alternative Energy class hosted a seminar on "Methane Production on the Farm" - 3/3/80 ● College received State Department of Natural Resources grant for a Wood Gasification Project; designed as a lab project for students in the Alternative Energy and Lifestyles Program.	Art Boyt, Energy Program Director 417/451-5365	● 3/10/80 <u>MACJC</u> <u>News</u> <u>Digest</u> ● Verified 4/17/81 ● 3/23/81 <u>MACJC</u> <u>News</u> <u>Digest</u>

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Maple Woods Community College 2601 N.E. Barry Road Kansas, City, MO 64156 816/436-6500	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● Facilities conservation measures implemented by the college include: - 4-day schedule for the summer session - reduced overhead lighting - thermostats lowered to meet national guidelines - travel exchange bureau set up in Student Center to facilitate car-pooling - evening schedule compressed to reduce frequency of classes	A. Edward Lambert 	● EWLF material ● 2/80 Response Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mineral Area College Flat River, MO 63601 314/431-4593.....	Solar	• Energy Alternatives, 3-credit course offered through the Technical department, with focus on appropriate technology, centralized solar power systems, conservation, solar components, heat and energy transfer, hybrid systems, satellite solar power systems, passive solar systems, solar home construction, and solar systems design.	James G. Hrouda 314/756-3171	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Moberly Junior College College and Rollins Streets Moberly, MO 65270 816/263-4110	Solar	● Elements of Solar Energy, course provides an overview of alternate energy forms. ● Solar Home and Building Design, course in low technology, passive, solar home and small commercial design techniques. (Both courses are aimed at the small contractors who build the majority of the nation's structures.)	Dean of Occupational and Adult Education	● 1/80 Response Letter
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Penn Valley Community College Kansas City, MO 64111 816/756-2800	Humanities/ Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● College strategies have included: lowered temperatures in buildings; and reduced lighting levels, hours of equipment operation, and fan speeds; result was 62% savings in energy costs.	Chauncey D. Moten, ext. 303 Kenneth Gillespie, Director Physical Plant 816/756-0220	● EWLF material ● AFD

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
St. Louis Community College at Forest Park 5600 Oakland Avenue St. Louis, MO 63110 314/644-9100	Facilities Conservation	● College has initiated in-house conservation measures.	Roger Brendecke, Director of Physical Facilities	● 2/80 Response Letter
	Solar	● Solar Energy Application, 2-credit course offered through the Community Services Division, with stress on energy efficient design and alternative energy sources - for designers, builders, and consumers.	Warren Baltzer, Coordinator, Trades and Industry Programs 314/644-9698	● 1/80 EEP
	Humanities	● Participant in Energy and The Way We Live Forums.	James Lahr	● EWLF material
	Faculty Development	● College is grantee under the 1980 USDOE Faculty Development Program; Summer Workshop on General Energy Education, 5-day session for college, junior college, and technical institute teachers with stress on energy saving techniques in hospitality and foodservice programs	Jack E. Miller 314/644-9749	● USDOE Announcement ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
St. Louis Community College at Meramec 11333 Big Bend Boulevard St. Louis, MO 63122 314/966-7500	Solar	Fundamentals of Solar Energy and Energy Conservation, 12.5-contact hour course offered through the Continuing Education department with focus on concepts: energy, power, heat, solar radiation, solar collectors, storage devices, hot water heating, space heating, air conditioning, insulation, energy conservation in homes, retrofitting, and the basic solar home. Course offered in conjunction with the Missouri Solar Energy Association. In Mechanical and Electrical Systems I and II courses, a considerable amount of time is spent on energy conservation, solar energy and related topics.	James D. Pierce Dean of Instruction	• 2/80 Response Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
State Fair Community College 1900 Clarendon Road Sedalia, MO 65301 816/826-7100	Alcohol	College is grantee in the USDOE Alcohol Fuels Training Grants Program; 3-day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuels production, especially on a small scale.	Keith Allen Marvin Fielding	USDOE Announcement
	Humanities	Participant in Energy and The Way We Live Forums.	Robert H. Woolery	EWLF material
	Energy General	- College is developing an AAS degree program in Agricultural Energy with the aid of state funding (Department of Elementary and Secondary Education Research Coordinating Unit); to begin fall 1981 and will include focus on methane gas, solar, wind, crop residue utilization, and small/medium alcohol fuels production plants. - With the aid of a variety of grants, the college is conducting research and demonstration projects designed to clarify strategies for farm energy independence. Grants have supported: - purchase of large bale burner, tractor, grinder mixer, grain dryer heating systems for building, and lab equipment - feasibility study in agricultural use of fuel alcohol - energy awareness program in agricultural renewable energy sources and applications - two slide-tape presentations on renewable energy and alcohol fuel	Keith Allen	12/12/80 AACJC meeting - Verified 4/2/81

MONTANA



Bitterroot

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Dawson Community College Box 421 Glendive, MT 59330 406/365-3396	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit. ● Courses: - Population, Energy & Environment non-technical course covering energy use to support the life style of a population, resource depletion and the environmental effects. - Alternate Energy Choices, meant for homeowner and covers the basics of heat transfer, insulation, furnace efficiency, wood stoves and fireplaces, heat pumps and solar heating systems.	Robert C. Schaal, Director of Voc. & Continuing Education	● 2/80 Survey Response
	Energy General			
	Coal	● 1972 & 1975 administered a Montana Coal Energy Development Symposium and 10 one-day Workshops; both were provided for community leaders and the general citizen.		
	Conservation	● Offers a 4-credit course called Conservation Ecology. Eight hours of class time is devoted to energy and energy-related topics. Also, field trips to coal strip mines and a power plant are part of the curriculum.		
	Facilities Conservation	● Comprehensive energy audit of the college was conducted in the fall of 1979; led to a number of modest energy conservation actions.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Miles Community College 2715 Dickinson Miles City, MT 59301 406/232-3031	Coal	● College is planning an AA degree in Applied Science in Power Plant Technology, with focus on entry level skills for employees of coal-fired generation plants; training will provide 5 stresses: 1. Operator 2. Mechanic 3. Instrumentation 4. Electrician 5. Management ● Development of the Energy Resource Technology Program. A request came to the college from Montana Power Company asking it to establish a two-year Associate Applied Science program for energy technicians, focusing primarily upon the coal industry, from extraction to generation of electricity. The college has undertaken a series of contacts which may lead to the establishment of the program and the training facilities by a consortium of cooperating community colleges within the intermountain area.	Robert Hokom, Dean of Instruction John Koch	● 1/80 Response Letter ● NCRD, PE ● Verified 4/7/81

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Goldenrod

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Technical Community College P.O. Box 1024 Hastings, NE 68901 402/463-9811	Solar Conservation	● Solar Energy Fundamentals, 2-credit course; introduction to study of and use of solar energy, with focus on heat theory, insulation, and passive and active solar systems. ● Energy Saving Techniques, 1-credit course, teaches heat energy conservation calculations and construction techniques for renovating existing homes. ● Energy Utilization and Conservation, 3-credit course, with focus on application and use of buildings, equipment, and materials to best utilize and conserve energy.	Dennis Tyson, Dean of Instruction	● NSEED '80 ● SE ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Technical Community College Area Grand Island Education Center Grand Island, NE 66801 308/384-5220	Conservation	• Home Energy Conservation with focus on environmental concerns such as building position, location, wind-breaks, building materials, insulation, products, load calculations, solar collectors, heat storage, and typical installations. • Energy Management in Institutional and Commerical Buildings, 1/2 credit course covers energy fundamentals, building surveys, cost calculations, equipment operations and measurement of efficiency, and conservation management.	Larry L. Keller, Chief Executive Officer, Education Center	• 12/79 Survey Response • SE
	Alcohol	• Alcohol Fuel Production course, patterned after Colby Community College program; 3-credits.		
	Solar	• Solar Energy Application; 1-credit course offered through the Environmental Control department, with stress on solar radiation, measurement of radiation, collection and storage techniques, and controls • Solar Energy Fundamentals, 2-credit course offered through the Refrigeration and Heating department, with emphasis on solar components, energy storage systems, passive solar systems, and solar systems design.	Marion Kinkade 308/384-5220 Alan Krueger 308/463-6811	• NSEED'80 • 1/80 Response Letter
	Humanities	• Participant in Energy and The Way We Live Forums.	Larry L. Keller	• EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Metropolitan Technical Community College 30th and Fort St. Omaha, NE 68137 402/457-5100	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● College offers a Certificate in Survey of Solar Energy, through the Continuing Education department: topics include solar energy education, solar systems installation-residential, solar technology-instrumentation/controls/design/maintenance, and do-it-yourself home installation. ● Introduction to Solar Energy and Alternate Energies, 3-CEU credit course offered through the Continuing Education department, with focus on appropriate technology, conservation, greenhouse techniques, materials, passive solar systems, solar systems design, and wind energy conversion systems.	James J. Kafka, Ext. 206 Larry Reinmuth, Ext. 190	● EWLF material ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mid Plains Tech. Community College Area North Platte, NE 69101 308/534-9265	Solar	● College offers one solar energy course.	Tom Gorman, North Platte Campus	● 12/79 Survey Response
	Humanities	● Participant in Energy and The Way We Live Forums.	Robert Paschall, McCook Campus Bob Paschall 308/345-6303	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Nebraska Western College 1601 E. 27th St N.E. Scottsbluff, NE 69361 308/635-3606	Alcohol	Ethanol Fuel Production course currently being offered. Planning a certificate technician program.	Donald Reed	SE
	Conservation	Residential Energy Conservation, 2-credit course, with stress on Infiltration control, insulation, weatherstripping, caulking, home energy auditing, and energy cost-saving ideas.		Verified 4/3/81
	Alternate	Fireplace Efficiency Workshop, non-credit program designed to identify and solve existing fireplace problems; topics include heat loss prevention, cleaning chimneys, and making fireplaces more effective.		
	Solar	College plans to offer workshops and short courses for general public interest. Also short courses on installation/maintenance/evaluation of both active and passive systems. Also planning a certificate solar technology program.		
	Energy General	Developing and accumulating reference materials on energy conservation and alternate energy.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northeast Tech. Community College Area 801 E. Benjamin Avenue Norfolk, NE 68701 402/371-2020	Facilities Conservation	● College submitted proposal: Energy Conservation Measures Program to Institutional Buildings Grants Programs, Lincoln, Nebraska at the State Energy office, for in-house conservation activities, to reduce energy consumption at the college.	Robert Schlimgen, Norfolk Campus	● 12/79 Survey Response
	Humanities	● Participant in Energy and The Way We Live Forums.	Martin P. Hartford, Project Director Ext. 273	● 2/80 Response Letter
	Solar	● Residential Solar Application, 12-credit experimental solar energy course offered in summer 1980; to be offered again.	Thomas Carraher	● EWLF Material ● SE
	Energy General	● College offers sequence of non-credit courses: Solar Heating, Earth Sheltered Underground Housing, and Residential Energy Conservation.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Platte Technical Community College P.O. Box 1927 Columbus, NE 68601 402/564-7132	Solar	● Solar Energy Application, $\frac{1}{2}$ credit course, with focus on the nature of solar radiation, radiation measurement, collection techniques, storage systems, controls, and applications of air and water systems.	Jerry A. Lee, President	● SE
	Alcohol	● Grain Alcohol Production, 1-credit course with focus on laws governing production, engine modification, and alcohol fuel use. ● Energy From Agriculture, non-credit workshop, with focus on current review of research and technology available to produce alcohol from farm products.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southeast Community College Fairbury/Beatrice Campus Fairbury, NE 68352 402/729-6148	Humanities Conservation	● Participant in Energy and The Way We Live Forums. ● College has offered Home Energy Conservation course, but discontinued because of low enrollments.	Frank Bomberger	● EWLF material ● SE

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southeast Community College Lincoln Campus 8800 "O" Street Lincoln, NE 68520 402/471-3333	Solar	● Series of courses offered through the Trade and Industrial Occupations Division on Solar Energy, Solar Hot Water Heating, and Design and Construction of Passive Solar Systems; all are 2-credit courses. ● In fall 1979, offered Solar Water Heating Workshop, two days, for vocational education instructors, architects, engineers, installers, and homemakers; focus on collectors, sizing, economics, installation, and hardware demonstrations; sponsored by Nebraska Department of Education; endorsed by the Nebraska Energy Office and other state energy groups.	Dean Housel, Department Chairman Ext. 268	● 1979-80 Schedule of credit classes ● Program flier
	Humanities	● Participant in Energy and The Way We Live Forums.	Lonnie Johnson	● EWLF material
	Environ- mental Education	● College offers degree program in Environmental Studies.		● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of Nebraska-Lincoln School of Tech. Agriculture Curtis, NE 69025 308/367-4124	Facilities Conservation	● Maintenance and retrofitting activities at the school include: - modified boiler fireboxes to improve efficiency - reduced loss of condensate from buildings - cleaned corrosion on boiler tubes - improved maintenance procedures on all equipment - added insulation - installed insulating glass in some windows and reduced window size - weatherized doors, windows, and other openings - closed off unused air shafts and chimneys - installed automatic temperature controls - installed new power lines and transformers and balanced electrical load - replaced incandescent lamps with mercury vapor lighting outside and fluorescent lamps outside.	W.J. Cole, Physical Plant Manager	● 2/80 Response Letter

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clark County Community College North Las Vegas, NV 89030 702/643-6060	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Solar Energy Technology, AA degree program offered through Solar Energy Technology/Science department, with stress on instrumentation, controls, design, and maintenance. Principle solar courses include: Advanced Solar Energy Technology (4-credits), Introduction to Solar Technology (4-credits), Passive Solar Heating and Cooling Technology (3-credits), and Practicum in Solar Technology (3-credits). College also offers Solar Energy Technology-Home Owner, a 15-contact hour course, with focus on alternative energy sources, appropriate technology, conservation energy storage systems, plumbing techniques, solar home construction, systems design, installation/maintenance, testing/evaluation, swimming pool heating, and solar heating and cooling.	Judith S. Eaton, President David Comarow	● EWLF material ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Western Nevada Community College 7000 El Rancho Drive Sparks, NV 89431 702/885-5070	Environ- mental Education	College offers degree program in Environmental Studies through the Arts and Sciences Department.	Jack C. Davis, President	EPCG

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Hampshire Vocational Tech. College Milan Road Berlin, NH 03750 603/752-1113	Environ- mental Education	College offers degree program in Drinking Water/Wastewater Treatment Technology through the Natural Resources Management Department.	Edward C. Oleson, President	EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Hampshire Vocational Tech. College 1066 Front Street Manchester, NH 03102 603/668-6706	Solar	● Solar Energy Certificate Program, offered through the Evening Extension department, with focus on conservation, do-it-yourself home installation, appropriate technology, solar systems design, systems installation/maintenance, heat and energy transfer, and systems testing/evaluation. Courses include: - Energy Conservation - Principles and Practice, 3-credit - Energy Survey and Alternative Systems, 3-credit - Principles of Solar Design, 3-credit - Solar Construction and Installation Techniques, 4-credit - Solar Energy - A Prime Energy Resource, 4-credit - Solar Heating Systems, 4-credit - Solar Seminar - Integrated Projects, 3-credit ● College is planning an AAS degree/certificate program Solar Technician and an AAS degree/certificate program Energy Conservation and Alternative Energy Use Technician.	James A. Pietrouito, Dean, Extension and Community Services Division	● NSEED'80 and Letter, 7/80
	Audit	● With the local CETA office, college has developed an Energy Auditor Training Program, a 644 hour program.	Richard E. Mandeville, President	● 7/80 Letter
	Energy General	● Various non-credit short courses and seminars on home energy audits, wind and hydro generation, residential solar design, greenhouse construction and installation and alternate energy sources.	James A. Pietrouito	● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Hampshire Vocational-Tech. College Nashua, NH 03060 603/882-6923	Solar	• Energy and Energy Sources, 3-credit course offered through the Math/ Science departments, with focus on alternate energy sources, conservation, heat and energy transfer, and introduction to solar energy.	Lawrence Hagen	• NSEED '80

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Atlantic Community College Mays Landing, NJ 08330 609/625-1111	Facilities Conservation	● New college facilities will include innovative solar design: -Passive solar technology. -Will rely on natural light, heat, and ventilation. -Energy consumption estimated at a reduction of 25 to 40 percent, depending on type of space. -Design south facing skylights and glass walls admitting light and heat -Movable overhangs above glazed areas prevent excessive heat gain in summer and heat loss in winter. Dark massive floor slabs and concrete mass walls serve as solar collectors and radiators.	Lawrence R. Winchell, Jr., President	● 4/80 AACJC Journal Article, pg. 55
	Humanities	● Participant in Energy and the Way We Live Forums	Elmer Kanwisher	● EWLF material ● Verified 4/21/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bergen Community College 400 Paramus Road Paramus, NJ 07652 201/447-1500	Solar/ Conservation HVAC	• Demonstration college for the U.S. Dept. of Energy's Solar Energy Utilization, Economic Development and Employment in Low Income Communities (SUEDE) program, created to demonstrate the feasibility of combining solar heating technology, job training, and small business development in promoting energy conservation and economic growth in disadvantaged communities. College is working with Bergen County Board of Chosen Freeholders, Bergen County Community Action Program, Inc. and National Association of Solar Contractors to train 30 CETA participants to install solar hot water systems and solar air panels in 44 single family homes. SUEDE completed in 1980. Emerging from the program, a 1-year certificate program, Energy Technician Training, was introduced in the fall 1980 through the Community Services Division. Solar is stressed. Courses include: - Techniques of Energy Auditing, Analysis, and Conservation - Industrial-Commerical Energy Management - Basic Solar Systems and Solar Lab - Solar Domestic Hot Water Systems - Controls for Solar Systems - Solar System Maintenance - Advanced Solar Applications - Solar System Maintenance - Passive Solar Design	James R. Torpey, Jr. Energy Program Dir. ext. 460 Nancy Jordan, Educ. Planning and Devel.	• 2/80 SUEDE Project Packet • 7/80 letter • 8/80 letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bergen Community College Paramus, NJ 07652		- Blueprint Reading and Estimating - Air Conditionong-Central and Window - Oil Burner Service - Oil Burner Electric Controls Three certificates are offered: Specialization in Energy Technology, Proficiency in Energy Technology, and Studies in Energy Technology. Certificate programs are presented in cooperation with Bergen Technical School. College has conducted a needs assessment of local business and industry. College plans to offer 3 one-year certificate programs in the fall 1981: - Energy Management and Conservation - Solar and Renewable Resource Utilization - Heating, Refrigeration, and Air Conditioning A 550-square-foot solar laboratory has been constructed in college courtyard with aid of CETA trainees and students in technician programs; building details reflect local housing; use includes hands-on lab for technician training and as research and demonstration facility to transfer results to private housing.		
<u>CONTINUED</u>				
	Humanities	• Participant in Energy and The Way We Live Forums; offered for credit.	Louis Marshall	• EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bergen Community College Paramus, NJ 07652	Environ- mental Education	College offers degrees in Environmental Engineering Technology and Environmental Studies.		- EPCG - Verified 4/8/81
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Brookdale Community College Lincroft, NJ 04438 201/842-1900	Solar	● 3-credit course: Solar Energy; Its Nature and Uses, sponsored through the Natural and Applied Sciences Institute of the college. Covers nature and use of solar radiation, weather as well as the passive and active use of solar energy systems for the residence, the greenhouse, and the swimming pool. Study includes solar collectors, heat load sizing, cost analysis and installation.	Dr. John Frey, Dean Natural and Applied Sciences Institute ext. 311	● 1/80 EEP
	Facilities Conservation	● Energy Task Force organized to review energy uses, study possible changes to heating systems, and examine alternative energy forms; controls systems modified for efficiency, reduced use of outside air and summer reheat, caulking, insulation, weatherstripping, and reducing temperatures.	Raymond Minchew, Director of Facilities ext. 225	● EMS
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Julie Barrier- O'Grady and Robert Mellert, Coord.	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Burlington County College Pemberton, NJ 08068 609/894-9311	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers degree in Environmental Science/Health.	John Sills	● EWLF material ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Camden County College Blackwood, NJ 08012 609/227-7200	Humanities Conservation	● Participant in Energy and The Way We Live Forums. ● College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.	Milton Somers, ext. 479 Dr. Martin Schwartz, Director of Research	● EWLF material ● CORD material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
County College of Morris Randolph, NJ 07869 201/361-5000	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers degree in Drinking Water/Wastewater Treatment Technology.	William G. Huber, ext. 204	● EWLF material ● EPCG ● Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cumberland County College Vineland, NJ 08360 609/691-8600	Humanities Solar Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● Fundamentals of Solar Heating, 3-CEU/18 contact hour course offered through the Science Technology department, with focus on introduction to solar energy, solar domestic hot water, and solar heating. ● College was funded (U.S. Department of Energy) to install a complete solar system for preheating hot water for showers and kitchen in the institution. Project also serves as a lab for related course work, a model for community examination, and a design for solar heating systems for local residences and industries.	John Reinard P.G. Menz, ext. 59	● EWLF material ● NSEED '80 ● NCRD, PE ● Verified 4/21/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mercer County Community College Trenton, NJ 08690 609/586-4800	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● College is planning the construction and the installation (by students) of a tracking solar furnace; student engineering club is supporting the project.	Toni Mennoti Robert W. Duncan Assoc. Professor	● EWLF material ● AED

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Middlesex County College Edison, NJ 08817 201/548-6000	Humanities Faculty Development Environ- mental Education	• Participant in Energy and The Way We Live Forums; offered for credit. • College was grantee under the 1980 USDOE Faculty Development Education Program; Summer Workshops in Energy Education Program--Project SWEEP; 5-day program offered 120 junior and senior high school teachers a technological and historical overview of energy and an understanding of the socioeconomic implications. • College offers degree in Environmental Science/Health.	Anita Voohees David E. Beyer Jack Waintraub	• EWLF material • USDOE Announcement • EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Passaic County Community College College Boulevard Paterson, NJ 07509 201/279-5000	Facilities Conservation	College has applied various conservation strategies: cut heat in all buildings to 65°; shut down floors from 12 midnight to 5:20 a.m.; new windows in Founder's Hall; cut down lighting throughout college; timers installed on parking lot lighting; closing off all service areas nights and weekends; cut down use of college vehicle; new HVAC has been installed in Founder's Hall and converted from steam to water; boiler from oil to a combination of gas and oil; installed water flow reducing device; temperature of water dropped; cut heat in all storage areas to 55° where possible; and employee car pools encouraged. Conservation strategies have resulted in approximately \$20,000 reduction in electricity costs and approximately 12,000 fewer gallons of fuel oil.	Eileen A. Kokorsky, Director of Institutional Research	2/80 Response Letter - Verified 4/21/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Salem Community College Penns Grove, NJ 08069 609/299-2100	Humanities Environ- mental Education	• Participant in Energy and The Way We Live Forums. • College offers degree in Drinking Water/Wastewater Treatment Technology.	Dean Tetz, ext. 258	• EWLF material • EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Somerset County College P.O. Box 3300 Somerville, NJ 08876 201/526-1200	Environ- mental Education	College offers degree in Environ- mental Studies through Environmental and Laboratory Technology program.	S. Charles Irace, President	EPCG

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Eastern New Mexico University Schepps Blvd. Clovis, NM 88101 505/762-3823	Alcohol	College is planning Alcohol Fuel Production course through the Vocational Studies department, with focus on alcohol fuels still plant construction, distillation, solution chemistry, economics of feedstocks, food and energy content of surplus mash, state and federal regulations, and fermentation. Plans include the construction of an operating alcohol fuel still plant on campus.	O.B. Coffey, Director of Vocational Studies Stephen L. Harrington Instructor, Alcohol Fuel Program	3/80 Letter 8/80 Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Luna Vocational- Technical Inst. P.O. Drawer K Las Vegas, NM 87701 505/454-1484	Coal Solar	• College offers a Coal Mining Training Program. • College offers solar related courses, including instruction in solar panel construction/maintenance and greenhouse operations.	Lawrence Pino Donald R. Lavash, State Energy Department	• 2/80 Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Mexico Junior College Hobbs, NM 88240 505/392-6526	Energy General	● College is establishing an Energy Institute.	Robert A. Anderson, Jr., President	● 2/80 Office Survey, State Energy Office
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Joe Gill	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Mexico Military Inst. Roswell, NM 88201 505/622-6250	Facilities Conservation	In-service workshops in energy conservation measures offered for Institute personnel.	Maj. Gen. Gerald Childress, President	2/80 Survey Response, State Energy Office

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Mexico State University Carlsbad Campus Carlsbad, NM 88220 505/885-8831	Conservation	• College offers conservation work- shops.	Shelton W. Marlow	• 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Mexico State University Dona Ana Branch Las Cruces, NM 88003 505/646-3211	Solar Humanities	● College conducts solar energy research. ● Participant in Energy and The Way We Live Forums.	Patricio G. Quintana, Director W.D. Pete Smith	● 1/79 ERTA, TERC ● EWLF material

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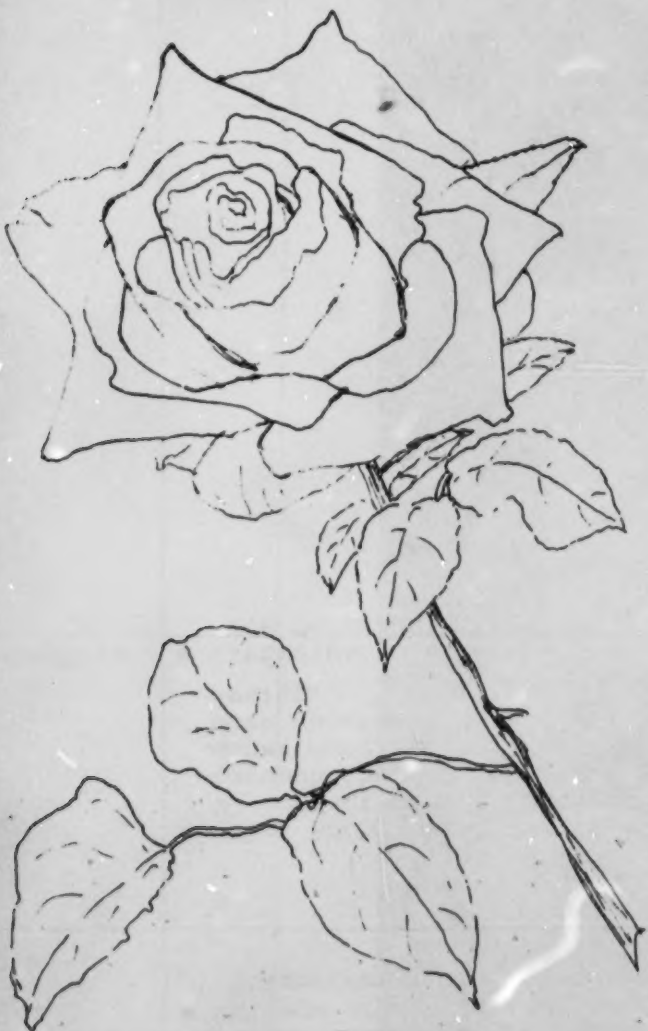
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
New Mexico State University Grants Campus Grants, NM 87020 505/287-7981	Mining	● College offers Uranium Mining courses.	Donaciano E. Gonzalez, Director	1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern New Mexico Community College El Rito, NM 87530 505/581-4501	Solar	● College offers courses in Solar Design/Construction-Residential. ● Solar Adobe Design and Construction, 21-contact hour course offered through the Continuing Education department, with focus on solar home construction and solar systems design.	Bette Guillen, Coord. for Cont. Educ. 505/753-7141, ext. 218 Quentin C. Wilson 505/583-2356	● 2/80 Survey Response State Energy Office ● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums.	Patricia Losey, 505/827-2688	● EWLF material ● Verified 4/22/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Adirondack Community College Glen Falls, NY 12801 518/793-4491	Solar	● Seminar on Solar Energy offered through the Occupational Education department with stress on instrumentation, controls, and maintenance; non-credit. ● Seminar in Solar Energy, 3-credit course offered through the Occupational Education department; topics include storage systems, marketing/economics, home construction, installation/maintenance, domestic hot water, and solar heating. ● College is planning to build a solar energy building.	Charles Harrington, 793-0274	● NSEED '80 ● 1979 Hamilton Study

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bronx Community College Univ. Ave. & West 181 Street Bronx, NY 10453 212/220-6450	Facilities Conservation	● Established a system to facilitate car pooling and ride sharing. Free service provided for the students and faculty at the college. ● Has established an energy programming unit in the Office of the Dean of Administration. The following have been initiated: - Construction of a Campus Selective Energy Plant in March of 1980. The plant will have the capability of producing up to 6000 KW of electrical energy plus the utilization of waste heat for conversion into high temperature hot water to supply the campus heating requirements. - Various New York State energy technical assistance grants have been approved for the college, which will supply implementation funds for building renovations for energy conservation. - The college has been the recipient of HN 206 CUNY project monies for existing boiler improvements, steam line modifications, heating control modifications, and electrical relamping and improvements.	James D. Ryan, Grants Office 212/220-6390	● 3/80 Survey Response
	Audit	● Project EASI (Energy Advisory Service to Industry), with support from the state Energy Office, college offers free energy surveys to local small and medium-size industry.	Martin Pulver, Chemistry 212/584-2956	● 2/80 News-release ● Verified 4/21/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bronx Community College Bronx, NY 10453	Conservation Solar	- Conducted a 2-day energy conservation exposition for the community and the student body in cooperation with the Consolidated Edison Company. - Investigation of the effectiveness of a passive solar energy collection system installed on masonry walls of multi-story urban structures. Supported by the Department of Energy, Appropriate Technology Program.	Martin Pulver, Chemistry 212/584-2956	
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cayuga County Community College Auburn, NY 13021 315/253-7345	Humanities Solar	• Participant in Energy and The Way We Live Forums; offered for credit. • Solar Heating Energy, 1-credit course offered through the Science department, with stress on heat and energy transfer, energy storage systems, introduction to solar energy, passive, solar systems, solar components, and solar heating.	Robert Simkin 315/364-8065	• EWLF material • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
City University of New York City Community College 300 Jay Street Brooklyn, NY 11201 212/643-4900	Environ- mental Education	● Environmental Control Technology, AA degree program offered through the Applied Science department, with focus on mechanical/electrical systems for building sand processes-solar specialization, heating/ventilation/air conditioning-solar specialization, instrumentation, and controls/design/maintenance. Courses with solar stress include: Environmental Design, Environmental Design Laboratory, Environmental System Design, and Hydronic Systems Design.	Samuel Lomask 212/239-1696, ext. 1658	● NSEED'80 ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Columbia-Greene Community College Hudson, NY 12534 518/828-4181	Energy General	● Sponsored free energy fairs last year, with primary focus on demonstrations and exhibits of technology advances.	Roger A. VanWinkle	
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Peter Ambrose	● EWLF material
	Solar	● Solar Energy, 20-contact hour course offered through Continuing Education department, with focus on alternative energy sources, conservation, heat and energy transfer, solar home construction, systems design, and solar heating and cooling.	Donald A. Drum	● NSEED '30
	Environ- mental Education	● College offers degree program in Environmental Studies.		● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Community College of the Finger Lakes Canandaigua, NY 14424 716/394-3500	Facilities Conservation Conservation Environ- mental Education	● Active car pooling operation with voluntary ride board on wall in student services area. ● Possible 4-day work week ● Mass-lighting control has been replaced in the last two years with individual room switches. ● Natural Resources Conservation curriculum established for two years. ● The college offers certificate and degree programs in Environmental Studies.	John D. Fahy, Director Information Services	● 1/80 Response Letter ● 2/80 In-house Report ● 1/79 ERTA, TERC ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Corning Community College Spencer Hill Road Corning, NY 14830 607/962-9011	Energy General/ Solar	• Courses: Energy and You, provides details on the energy crisis and its impact on individuals; Solar Heating and Cooling Design, offers analysis of active solar systems and matching systems to homes. • Established energy education advisory committee to pursue other programming possibilities	George Gifford, Chairman, Math/ Physics/Tech. Div.	• 2/80 In-house Report
	Humanities	• Participant in Energy and The Way We Live Forums; offered for credit.		• EWLF material
	Facilities	• As the result of an audit, college is replacing single-pane glass with double-pane ones, installing insulation draperies, and considering four-day class weeks, and car- and van-pooling.		• Verified 4/4/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Dutchess Community College Pendell Road Poughkeepsie, NY 12601 914/471-4500	Humanities Energy General Information Center Environ- mental Education Facilities Conservation	● Participant in Energy and The Way We Live Forums; offered for credit. ● Day courses that focus on the social, political and economic aspects of the energy problem. ● Day courses that concentrate on the technology of alternative energy sources. ● Continuing Education courses that address such areas as conservation in the home, installation of solar panels, energy efficient home design. ● Courses that deal directly with power plant siting, pollution of local rivers. ● In-service courses for high school teachers who are attempting to teach energy-related subjects. ● Utilization of the community college as a clearinghouse for energy-related projects and information. ● College offers degree program in Environmental Studies. ● Installation of insulation, double paned windows, microprocessor for load shedding, external weather sensors, retrofitting of incandescent lights with fluorescents, solar shades.	Donald H. Puretz, Asst. to the Pres., ext. 228	● EWLF material ● 12/79 Survey Response ● Spring 1980 College Catalog ● EPCG ● Verified 4/13/81

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Erie Community College North Campus Main Street & Youngs Road Buffalo, NY 14221 716/634-0800	Alternate/ HACR	College offers certificate program with courses in Heating & Cooling Controls, Fabrication, Design in the Mechanical Technology Unit. Courses include 3 credit electives, Solar Energy, Wind Energy.	Peter Semanchuk, Coordinator Mechanical Tech., ext. 431	Verified 4/6/81
	Environ- mental Education	- College offers concentration within Chemical Technology Program in preparing students to monitor and evaluate soil, air, and water resources. - Concentration on water chemistry within Chemical Technology Program offers specialized courses to prepare students to operate and control wastewater treatment plants.	Gerald Berkowitz, Coordinator, Chemistry/Chemical Tech., ext. 465 Gerald Berkowitz	
	Facilities Conservation	Campus-wide conservation efforts have included: altered lighting, removal of wasteful manhole pump, and use of time clocks to reduce night temperatures of buildings.	David K. Kowalczyk, Dean of Finance	
Erie Community College North & South Campuses	Energy General	General Education courses, Environmental Science and Energy Environment are 3-credit courses offered through Physics Unit. Curriculum planning is underway of Energy Conservation, alternate technology.	Phyllis Koenig, Coordinator/ North Physics Unit, ext. 322	
Erie Community College South Campus 4140 Southwestern Boulevard Orchard Park, NY 14127 716/648-5400	Information Center	Information Resource Center for community use includes technical assistance, phone center, library resource materials.	Robert Beichner, Physics Unit, ext. 289	

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Fulton-Montgomery Community College Johnstown, NY 12095 914/762-4651	Facilities Conservation	● College is studying the substitution of used crankcase oil in its boilers. Estimates show that up to a million gallons will be available each year at less than half the cost of traditional fuel.	Kenneth J. LaSalle, President	● 2/80 In-house Report
	Humanities	● Participant in Energy and The Way We Live Forums.	Edward Serpa	● EWLF material

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Genesee Community College One College Road Batavia, NY 14020 716/343-0055	Solar	● Solar Energy, 3-credit course offered through the Science/Math department, with focus on conservation, energy storage systems, greenhouse techniques, passive solar systems, solar heating, solar swimming pool heating.	Ronald J. Cole	● NSEED'80

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Herkimer County Community College Herkimer, NY 13350 315/866-0300	Energy General	● Exploring the feasibility of introducing an Energy Technology Program; not yet approved at state level. The proposed AAS curriculum includes: Fossil Fuels, Environmental Law, Nuclear, Solar, Hydroelectric Power, Energy Systems, and Thermodynamics. ● Continuing Education office has offered a number of short programs concerning energy and energy conservation.	H. David Trautlein, Dean of the College	● 1/80 Response Letter
	Facilities Conservation	● The institution has installed storm windows and air locks, lowered thermostats, cut off hot water in restrooms, and encouraged alternate foot traffic paths to reduce opening and closing of outside doors.		
	Environ- mental Education	● College offers 1-year program in Drinking Water/Wastewater Treatment Technology.		● EPCG

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Hudson Valley Community College Troy, NY 12180 518/283-1100	Conservation	● Air Conditioning Technology and Refrigeration Mechanics program includes energy focus: - acquaint students with knowledge of energy systems used in the control of indoor equipment - offers instruction in various alternate energy sources such as solar, wind, biomass and geothermal - laboratories are equipped with solar energy systems for student experiments - students are required to design a solar heating system, and to do an energy audit of one of the campus buildings - attempting to change the name of the Air Conditioning Technology Program to Energy Systems Technology.	Edward P. Buckley	● 1/80 Response Letter
	Solar	● Non-credit Solar Energy course is presented when community interest warrants it.		
	Facilities Conservation	● Exploring idea for a four-day week.		
	Environmental Education	● College offers degree programs in Environmental Science/Health and Environmental Studies.		● EPCG

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Kingsborough Community College Brooklyn, NY 11235 212/934-5028	Facilities Conservation	● Campus-wide energy management strategies have included alterations in lighting, use of small heat pumps, heating plant conversion, storm window installation, and use of a computerized energy management system.	Ralph Edwards, Dean	● AED

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LaGuardia Community College 31-10 Thomson Ave. Long Island City, NY 11101 212/626-2700	Facilities Conservation	• In-house conservation efforts include: - decreased lighting throughout campus by approximately fifty percent - maintained a 78° room temperature during air conditioning season - maintained a 68° room temperature during heating season - maintained domestic hot water temperatures at 120° - installed reflective coatings on skylight areas to reduce refrigeration loads on central air conditioning system - investigated and compiled data for various methods of energy conservation and submitted an application for the technical assistance study grants under the provisions of the Dept. of Energy.	William Pan, Director Campus Environmental Services	• 2/80 Survey Response

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Mohawk Valley Community College Utica, NY 13501 315/292-5333	Solar	• Solar Energy Technology, Certificate program offered in the Physics and Engineering Science department; program training includes general contracting-specialization in solar, design/installation, heating/ventilation/air conditioning-solar specialization, solar systems installation-residential, solar technology-instrumentation/controls/design/maintenance, and plumbing and sheet metal-solar specialization. - Solar-related courses are: - Solar Energy I, Energy and Energy Conservation - Solar Energy II, Installation - Solar III, Solar Energy Systems Design and Analysis - Solar IV, Alternate Energy Sources - Solar System Fabrication I - Solar System Fabrication II • Solar Energy Technology, option in the Air Conditioning AAS program is planned for fall 1981. • Students in SET program, installed a solar air system which partially heats a classroom building, installed a liquid solar/heat pump system, and installing 500 square feet of evacuated tube liquid collectors in the gym to heat the water for showering. • Offer a concentrated six-day course in solar installation entitled "Solar Now" to HVAC professionals.	Dean Francis Dunning, 315/797-9530	• 1/80 Response Letter and NSEED '80

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Monroe Community College Rochester, NY 14623 716/442-9950	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Moses S. Koch, President J. Derek Harrison	● EWLF material
	Solar	● Alternate Sources of Energy, 8-contact hour course offered through the Community Services department, with focus on alternate energy sources, appropriate technology, conservation, heat and energy transfer, energy storage systems, solar home construction, and solar systems design.	Janis Dowd 716/275-9318	● NSEED'80
	Environ- mental Awareness	● College offers Environmental Control AA degree program. ● College is providing leadership through the Rochester Urbanarium, a consortium of education agencies, libraries, and neighborhood associations that addresses specifically metropolitan problems. Through lectures, exhibits, films, and workshops, this group is bringing energy awareness to a large and strategic community in Western New York State.	Dean Gary Miller, Engineering Tech.	● 2/80 SUNY In-house Report

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Nassau Community College Garden City, NY 11530 516/222-7000	Humanities Energy General Environ- mental Education	• Participant in Energy and The Way We Live Forums. • College offers a series of energy-related courses, including: - Science of Man's World I and II, 4-credit each offered through the Physics department, with focus on air pollution, population dynamics, principles of ecology, heat and thermal pollution, electrical energy, and nuclear power generation. - Continuing Education department offers general programs in energy and alternate energy. • Environmental Science I and II, 4-credit each offered through the Physical Science department, with focus on ecology, population and food production problems, solid waste disposal and future energy sources. • Environmental Science and Forestry AAS curriculum includes treatment of energy topics.	Robert Messina Dean of Instruction, Math/Science	• EWLF material • 12/80 Letter • Verified 4/2/81

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New York City Technical College Brooklyn, NY 11201 212/643-4900	Humanities Conservation	● Participant in Energy and The Way We Live Forums. ● College offers 25 community workshops on energy conservation in apartment houses (part of National Energy Extension Program and funded by the New York State Energy Office).	Luther M. Johnson, Jr. Richard Koral, Division of Continuing Education	● EWLF material ● Verified 4/17/81

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Niagara County Community College Sanborn, NY 14132 716/731-3271	Humanities	● Participant in Energy and The Way We Live Forums.	Louis DeLorenzo	● EWLF material
	Environ- mental Education	● College offers degree program in Environmental Studies.		● EPCG
	Conservation	● Short courses on energy conservation are offered by the Office of Community Education.	Gary McGuire	● Verified 4/3/81
	Solar	● Technology Division includes solar energy courses and applications in its Service Technician Program.	Jerry Repetska	

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North Country Community College Saranac Lake, NY 12983 518/891-2915	Awareness	College conducted more than 30 Citizens' Energy Awareness workshops; 1,350 people attended.	Peter J. Cayan, President	2/80 State News-letter

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Onondaga Community College Syracuse, NY 13215 315/469-7741	Energy Education Center	With the Energy Research Center of the Syracuse Research Corporation and the Borad of Cooperative Educational Service (BOCES), the college is planning the construction of a passive solar heated energy education center on its campus; development of a series of energy-related courses to be offered at the center is also planned. College and BOCES students will use the facility. A modest sized windmill attached to the center may be able to provide most of the total remaining energy needs. Included in the facility will be: shop-laboratory spaces for energy trades; special drafting, design, and model space for construction of buildings and equipment; an energy library and media center; and a large exhibit-display space for energy-related equipment, models for energy demonstrations, among other uses. Funding support comes from: U.S. Department of Energy and the New York State Energy Research and Development Authority. The project advisory committee includes representatives from: State Education Department, Onondaga County Energy Committee, County Legislature, County Economic Development Office, and other organizations.	Charles F. Adams, Director Planning, Research and Development Board of Cooperative Educational Service 6820 Thompson Road Syracuse, NY 13211 315/437-1631 Andreas A. Paloumpis, President Onondaga Community College	6/27/80 Letter and Flier
	Alcohol	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small	Andreas Paloumpis	USDOE Announce- ment

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Onondaga Community College Syracuse, NY 13215		scale. College is producing ethanol at a nearby dairy farm.		
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Orange County Community College 115 South Street Middletown, NY 10940 914/343-1121	Alternatives	● College sponsors a special late-afternoon seminar for high school students that previews energy alternatives and world politics in the 21st century.		● 2/80 In-house Report
	Humanities	● Participant in Energy and The Way We Live Forums.	Herman Pollack	● EWLF material
	Solar	● In course Architectural Design III, passive solar systems are studied.	George Large	● NSEED'80

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Paul Smith's College Paul Smiths, NY 12970 518/327-6211	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers degree program in Environmental Studies.	Craig Smith	● EWLF material ● EPCG

1114

1115

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rockland County Community College Suffern, NY 10901 914/356-4650	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Solar Energy- Its Use in the 1980's, 20-contact hour course offered through the Continuing Education department.	Philip Frey Ronald Cataldo 356-1527	● EWLF material ● NSEED '80

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Suffolk County Community College Selden, NY 11784 516/233-5174	Audits/ Conservation	● Along with Corning Community College (Corning, NY) college has established pilot projects to provide technical assistance to industry in its area. Following audits by the college staff, recommendations are made to small and medium-sized industrial plants on the most likely areas for saving energy.	Albert M. Ammerman, President	● 2/80 In-house Report
	Facilities Conservation	● Strategies include: - constructed solar greenhouses on top of outdoor sewage storage tanks to provide winter heating for sewage as it was processed at the treatment plant - installed 105 nonelectric room temperature control valves in a 45-year-old steam heated building that had no room temperature control units - as a result of Energy Audits, received a \$32,398 federal grant to conduct a Technical Assistance study; study produced an application for a \$400,000 grant request - installed a computerized energy management system using the Honeywell Delta 1000 - installed 3 high-speed retention head oil burners and automatic flue dampers (STACK-PACK) - complying with revised New York State Lighting Standards.	John C. Harrington, Admin. Vice Pres. 516/233-5196 Victor N. Cuneo, Jr. Assoc. Dean of Administration 516/233-5355 Victor N. Cuneo, Jr. Victor N. Cuneo, Jr. Alfred Towle, Director of Physcial Plant 516/369-2600 Alfred Towle	● AED ● Verified 4/14/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Sullivan County Community College Loch Sheldrake, NY 12759 914/434-5750	Conservation	● Energy conservation seminar for local small businesses arranged through the Business Division ● Humanities Division invited public relations representative from the Exxon Oil Company to address the Business Ethics class. ● Mathematics and Science Division energy related activities include: - many courses contain content dealing with energy - "Perceptions" seminar involves energy in general and solar energy in particular; held for members of the community - staff members have given talks off-campus on energy topics - studying the potential of solar energy for dormitory operation - annual Science Symposium includes several talks and displays relating to alternative sources of energy	Lewis R. Fibel, Vice President and Dean of Faculty	● 2/80 Response Letter
	Energy General			
	Conservation Solar	● Continuing Education division has offered Practical Energy Conservation and Use of Solar Energy in the Home.		
	Environ- mental Education	● College offers degree program in Drinking Water/Wastewater Treatment Technology.		● EPCG
	Conservation	● Conservation topics are addressed in various social problems courses and in microeconomics.		● Verified 4/21/81

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SUNY Agriculture and Technical College Alfred, NY 14802 607/871-6111	Solar	● Residential Solar Systems, 3-credit course offered through the Mechanical Engineering Technology department, with focus on solar components, energy storage systems, introduction to solar energy, solar domestic hot water, solar heating, solar home construction, and solar systems design.	David E. Conde 607/871-6230	● NSEED'80
	Facilities Conservation	● College has installed a special combination of insulating materials into a panel that aesthetically covers unnecessary windows and reduces heat loss.	James E. Hawes Principal Engineer 607/871-6373	● AED
	Environ- mental Education	● College offers degree program in Pesticides and Toxicology.		● EPCG

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SUNY Agricultural and Technical College Cobleskill, NY 14623 518/234-5111	Environ- mental Education	College offers degree program in Drinking Water/Wastewater Treatment Technology.	Walton A. Brown, President	EPCG

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SUNY Agricultural and Technical College Delhi, NY 13753 607/746-4111	Humanities Solar Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● Solar Study option in AAS degree program Construction, Architectural, Civil Technology offered through the Engineering Technologies department, with focus on solar specialization in architecture, engineering, mechanical/electrical contracting; general contracting--specialization in solar design/installation; solar system installation--residential/commercial/industrial; and do-it-yourself home installation. ● College offers degree program in Drinking Water/Wastewater Treatment Technology.	Charles Ricker George Duncan 607/746-4225	● EWLF material ● NSEED'80 ● EPCG

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SUNY Agricultural and Technical College Melville Road Farmingdale, NY 11735 516/420-2000	Humanities Solar Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● Air Conditioning Equipment Lab, 2-credit course offered through the Air Conditioning Technology department, with focus on conservation, energy storage systems, heat and energy transfer, introduction to solar energy, solar domestic hot water, solar heating, solar systems design, and solar systems testing/evaluation. ● College offers degree program in Pesticides and Toxicology.	Ed Garcia Leon J. Taub 516/420-2088	● EWLF Material ● NSEED '80 ● EPCG

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SUNY Agricultural & Technical College Morrisville Campus Morrisville, NY 13408 315/684-7000	Alternate	● Alternate Energy Resources, course offered through the Engineering Division; considering the addition of other energy options in the Mechanical Technology Program.	Cash Kowalski, Ed.D. Vice President for Academic Affairs	● 1/80 Response Letter
	Energy General	● Met with representatives from the Madison County Cooperative Extension Center for the purpose of developing a series of energy forums for adults, school children, college students and local farmers.		
	Environ- mental Education	● College has produced 15 video-cassetts on environmental education for use in 3-year college classes. ● College offers degree program in Drinking Water/Wastewater Treatment Technology.	Shirley A. Crawford	● 7/80 Letter ● EPCG
	Conservation	● Conservation topics stressed in college's Natural Resources Technology program.	Donald G. Butcher, President	● 1/79 ERTA, TERC

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Tompkins Cortland Community College 170 North Street Dryden, NY 13053 607/844-8211	Facilities Conservation	Since 1977 the college has been experimenting with a variety of window treatment approaches to conserve energy. Treatments include insulating drapes, reflective film, plexiglass, thermo shades, insulating sheets, and lexan sheets.	Phillip E. Donohue Director of Buildings and Grounds	1/20/80 College Report
	Conservation	In tandem with the window treatment research/demonstration program, the college developed an Energy Conservation Techniques curriculum with the aid of a federal grant. Equipment purchased through the grant was used by students to aid the window treatment program. Equipment included: 12-point recording thermometer, heat scanner, heat flow probe, thermister, and a programmable calculator.		
	Solar	Home Use of the Sun's Energy, 24-contact hour course offered through the Lifelong Learning department, with focus on alternate energy, appropriate technology, conservation, energy storage systems, introduction to solar energy, solar components, solar systems installation/maintenance.	Gary Klein	NSEED'80
	Environ- mental Education	College offers certificate and degree programs in Drinking Water/Wastewater Treatment Technology.		EPCG

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Ulster County Community College Stoneridge, NY 12484 914/687-7621	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers degree program in Wastewater Treatment Technology.	Robert T. Brown, President	● EWLF material ● EPCG

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Westchester Community College 75 Grasslands Rd. Valhalla, NY 10595 914/347-6800	Faculty Development	College is grantee under the 1980 USDOE Faculty Development Education Program; Energy Conservation Workshop for High School Science Teachers, 8-day program for 30 teachers, with focus on the technical, environmental, and social aspects of energy conservation.	Joseph N. Hankin, President Malcolm Goldberg Physical Sciences Department 914/347-6914	USDOE Announce- ment
	Humanities	Participant in Energy and The Way We Live Forums.	Arthur Hackett	EWLF material
	Energy General	- College's Solar Awareness Club has sponsored energy-related activities including Energy Day, with displays of alternative energies. - College has hosted auto emissions workshop for 20 college teachers; 40-hour program taught participants to give a 16-hour training program to automotive inspectors.	George E. Allen Community Relations 914/347-6844 John M. Sarrubbo	3/6/80 news- release 7/80 news- release
	Solar	- Alternative Energy Resources and Laboratory, 4-credit course offered through the Physical Sciences department, with focus on alternate energy, appropriate technology, bioconversion, solar components, conservation, ocean systems, photoconversion, photovoltaics and solar cells, solar domestic hot water, solar heating, solar system design, wind energy conversion systems. - Solar Heating and Energy Conservation, 12-contact hour community service course offered through the Physical Sciences department, with focus on solar components, conservation, heat and energy transfer,	Richard Knobel 914/347-6914 Richard Knobel or C. Wojan 914/347-6914	- NSEED'80 - NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Westchester Community College Valhalla, NY 10595		plumbing/sheet metal techniques-solar specialization, solar heating and cooling, solar systems installation/ maintenance, and solar systems test- ing/evaluation....		
	Environ- mental Education	• College offers degree programs in Pesticides and Toxicology and Environmental Science/Health.		• EPCG
<u>CONTINUED</u>	Appropriate Technology Facility	• College operates an alternate energy research and instruction facility for the use of college students, the community and local high schools. The solar-heated house was the result of a gift from the student associa- tion and the CETA program, and work by the college faculty and adminis- tration. Opened for instructional use Feb. 1981.	C. Wojan	
	Faculty Development	• College is grantee in the 1981 USDOE Faculty Development Program; 9-day workshops for high school teachers.		• USDOE Announce- ment • Verified 4/10/81

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Dogwood

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Anson Tech P.O. Box 68 Ansonville, NC 28007 704/826-2575	Solar Environ- mental Education	• No programs but solar component in Heating, Ventilation, and Air Conditioning. • College offers degree program in Pesticides and Toxicology.	J. Keyzer, Dean of Technology	• 1979 Hamilton Study • EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Beaufort County Community College P.O. Box 1069 Washington, NC 27889 919/946-6194	Solar	• College offers a course on solar energy.	James P. Blanton, President	• 1979 Hamilton Study

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Blue Ridge Technical College Flat Rock, NC 28731 704/692-3572	Solar	College offers solar energy course through its Extension Division. Course credits are CEU's and not for a degree.	William D. Killian, President	1/79 ERTA, TERC - Verified 4/2/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Caldwell Community College and Tech. Institute Hudson, NC 38638 704/728-4233	Consortium Energy General	College is member of Regional Energy Institute, a consortium of organizations in northwestern North Carolina; purpose is to merge similar interests in energy-related projects to promote more cohesive efforts toward the development, conservation and management of alternate energy resources in that area of the state. Mayland Technical Institute and Wilkes Community College are also members. Achievements of the consortium include: offered workshops and forums in energy technology, developed energy modules relating to energy conservation, and created a solar energy demonstration unit for display in various public places.	Dr. H.E. Beam, President	12/79 Survey Response and Press Release
	Humanities	Participant in Energy and The Way We Live Forums.	G. Steward Kirby	- EWLF material - Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cape Fear Technical Institute Wilmington, NC 28401 919/343-0481	Energy General	● Introduction to Energy Resources, 3-credit course with focus on economics of energy, history, and development of energy use; includes comparison of energy alternatives, examination of historical projections of geophysical experts on energy supply and usage, costs and benefits of production, distribution and use of various energy resources.	John R. Kennedy, Director, Evening Curriculum Program	● Verified 4/2/81
	Solar	● Introduction to Solar Energy Systems, 3-credit course with focus on fundamentals of solar energy thermal systems for space heating, cooling and hot water heating; includes history, economics and survey of the current state of the art. In laboratory the student will have hands-on experience with simple systems including performance measurement, testing and possible light construction. ● Solar Principles and Applications (Thermal), 3-credit course divided into two categories: (1) classroom work--exercises dealing with calculations and preparations to be utilized or experimented with; (2) laboratory work--experimentation, testing, and application of skills including design, installation, maintenance and troubleshooting a solar (thermal) system.		

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Carteret Technical Institute Morehead City, NC 28557 919/726-2811	Solar	• Solar Energy: Fundamentals and Construction, 27-contact hour course offered through the Community Services department, with focus on introduction to solar energy, solar systems installation/maintenance, systems testing/evaluation, and solar domestic hot water.	Brooks Whitehurst 919/726-1121	• NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Carolina Technical College 1105 Kelly Drive Sanford, NC 27330 919/775-5401	Facilities Conservation	• Thermostats reduced in the buildings; during orientation, students are encouraged to carpool and vanpool; faculty members are carpooling as much as possible; overhead lighting reduced; and through the Chamber of Commerce, working with area industrialists and businesspersons to encourage energy conservation.	Avron B. Upchurch, Dean of Instruction	• 1/80 Response Letter

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Piedmont Community College P.O. Box 4009 Charlotte, NC 28204 704/373-6566	Solar	● Applied Solar Energy, 3-credit course offered through the Architecture Technology department, with focus on alternative energy sources, conservation, heat and energy transfer, energy storage systems, marketing/economic analysis photovoltaics and solar cells, and solar systems design. ● College hosted pilot Solar Installer workshop conducted by the League for Innovation, 1979. ● Other solar-related courses include: - Solar Heating & Cooling, Systems I - Solar Heating & Cooling, Systems II - Energy Efficient & Solar Home Design.	Al Farkas 704/373-6633	● NSEED '80
	Energy Resources	● Rural Renaissance Project is developing audiovisual instructional modules on energy subjects.	Bill Whitman George Timblin	● 1/80 EEP
	Facilities Conservation	● Changed heating/cooling system from mixed air to resistance heat utilizing preheated air and redesigning an older building by eliminating two chillers, placed time clocks on hot water heaters and heating and air conditioning systems, reduced hot water temperatures, closed down two classrooms, lowered thermostats in winter, and used reclaimed heat to maintain hot water temperatures. ● College has applied consolidated scheduling scheme to reduce days students need to be on campus.	James C. Robertson, Manager of Plant Operations 704/373-6563	● 12/79 Survey Response ● EMS
			John M. Cozean, Asst. to the V.P. 704/373-6484	● AED

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cleveland County Technical Inst. 137 South Post Rd. Sheiby, NC 28150 704/482-8351	Environ- mental Education Solar	● AAS degree program, Environmental Science, with stress on environmental problems, impact of the problems, and possible solutions; several energy-related courses. ● Solar Energy, 4-credit course offered through the Management, Science and Math departments, with focus on appropriate technology, conservation, energy storage systems, domestic hot water, solar heating, and solar home construction. ● Participant in funded (N.C. Department of Commerce, Energy Institute) program to build passive solar systems in local homes.	C. Edwin White, Dean of Instruction Pat Hammer, Department Head, ext. 4046 Ben Albright, State Dept. of Public Instruction, 704/733-7421 Peggy Ball, State Dept. of Community Colleges, 704/733-7946	● 1979-80 College Catalog ● NSEED'80 ● NCRD, PE ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Coastal Carolina Community College 444 Western Blvd. Jacksonville, NC 28540 919/455-1221	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Fundamentals of Solar Heating, 4-credit course offered through the Air Conditioning, Heating and Refrigeration department, with stress on energy storage systems, heat and energy transfer, solar heating, solar systems installation/maintenance, and solar domestic hot water.	Fred R. Smith, Jr. ext. 279 Robert L. Hewitt ext. 264	● EWLF material ● NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Davidson County Community College Lexington, NC 27292 704/249-8186	Conservation	● College offers conservation courses.		● 1/79 ERTA, TERC
	Humanities	● Participant in Energy and The Way We Live Forums.	Don L. Lanning	● EWLF material
	Solar	● Air Conditioning, Heating & Refrigeration curriculum includes a one-quarter course, AHR 1129, Liquid and Solar Heat Applications.	Richard W. Robey	● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Gaston College Dallas, NC 28034 704/922-3136	Audit	College offers an energy audit training course.	Robert M. Howard President	1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Guilford Technical Institute Jamestown, NC 27282 919/292-1101	Solar	● Participant in funded (N.C. Department of Commerce, Energy Institute) program to build passive solar systems in local homes. ● Solar Hot Water Systems, 30-contact hour course offered through the Continuing Education department, with focus on conservation, energy storage systems, heat and energy transfer, and solar systems design. ● Attached Solar Greenhouse, 30-contact hour course offered through the Continuing Education department with focus on conservation, energy storage systems, heat and energy transfer, and solar systems design.	Raymond J. Needham President Ben Albright, State Department of Public Instruction 919/733-7421 Peggy Ball, State Department of Community Colleges 919/733-7946 Wayne C. Eller, ext. 242 Wayne C. Eller	● NCRD, PE ● NSEED '80
	Facilities Conservation	● College has conducted facilities audit through engineering consultant firm and, as a result, has replaced standard lighting with energy-efficient appliances, adjusted heating and cooling temperatures and added additional insulation where recommended.	Samuel Leslie Moon, Director of Physical Plant, ext. 283 Edward F. Duffy, Director, Development Research & Planning	● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Isothermal Community College P.O. Box 804 Spindale, NC 28160 704/286-3636	Audit Solar	● College offers training in energy audits. ● Uses of Solar Energy, 1-credit course offered through the Arts and Sciences department with focus on solar components, energy storage systems, solar domestic hot water, and solar heating.	Ben E. Fountain, Jr. President John M. Karriker, ext. 212	● 1/79 ERTA, TERC ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lees-McRae College P.O. Box 128 Banner Elk, NC 28604 704/898-5241	Facilities Conservation	● In process of retrofitting two old coal boilers with new underfed stokers, and new smoke stacks in order to discontinue use of newer oil burning boilers. ● Retrofitting buildings with new type thermostats inside and fit the buildings with controls based on outside temperatures. ● Installing aluminum framed de-vac windows in place of old wooden windows. ● Displaying energy posters to encourage energy conservation awareness.	Roy D. Krege, Vice-President for Business Affairs	● 2/80 Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Martin Community College Williamston, NC 27892 919/792-1521	Audit	• College has offered an audit training program.	Geoffrey E. Balkam	• 1/79 ERTA, TERC
	Faculty Development	• College was grantee in the 1980 USDOE Faculty Development Education Program; Energy Conservation and Alternate Energy Sources Workshop, a 10-day program for 30 high school science and humanities teachers, with focus on prevalent energy conservation methods and alternate energy sources; project goal was to stimulate energy awareness for local citizens through the teachers.		• USDOE Announcement
	Environmental Education	• College offers degree program in Environmental Science/Health.		• EPCG

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Mitchell Community College Statesville, NC 28677 704/873-2201	Audit Humanities	● College offers energy audit training. ● Participant in Energy and The Way We Live Forums.	Ed Bost	● 1/79 ERTA, TERC ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Montreat-Anderson College Montreat, NC 28757 704/669-8011	Facilities Conservation	• College has organized an "Energy Task Force" to examine energy wastage, and make suggestions about how to reduce energy use. Initial activities included: - lowered hot water temperatures - caulked windows and replace old ones - lowered dormitory space heating - initiated student/faculty conservation awareness efforts - removed some fluorescent lights in library - replaced metal windows in central building with wooden ones with triplex panes - thermostats lowered to 65° - using memorial fund, the college purchased several books on renewable energy resources. • College has established a small memorial fund to support energy conservation experimentation and faculty attendance at energy seminars.	John R. Crawford, Chairman, ETF	• 1/80 Response letter • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Pamlico Technical Institute Grantsboro, NC 28529 919/249-1851	Solar	● Solar Energy, 44-contact hour course offered through the Continuing Education department, with focus on solar systems installation/maintenance and solar domestic hot water.	Matthew Prescott	● NSEED '80 ● Verified 4/15/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Piedmont Technical College P.O. Box 1197 Roxboro, NC 27573 919/599-1181	Conservation	● College is developing a Boiler Mechanics program, with focus on installation, operation, and maintenance for electrical power generation, using a variety of fuels--coal, oil, natural gas, wood pellets, and methane gas, fuel handling methods (fluidized base coal), and system conversion methods designed to utilize more plentiful and less costly fuels on a more efficient basis -Residential heating and cooling systems: installation, operation, and maintenance -Installation, operation, and maintenance of instrumentation controls and valves, pumps, etc. for various systems. ● The program will serve as a demonstration center for efficient fuel usage and system conversion by experimenting with new techniques as they become available. Also, will serve as a center for collecting, storing, and disseminating energy conservation and energy technology information.	William D. Rentz, V.P. for Instruction and Student Development Thomas E. Carden Director Industrial Tech.	● 1/80 Response Letter ● AED
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Pitt Community College P.O. Drawer 7007 Greenville, NC 27834 919/756-3130	Conservation	• Energy Technology, AAS program, stresses energy management and energy conservation technologies; other areas of study include solar and solar application, alternative energy sources, and principles of physics, mathematics, management, and economics appropriate to more efficient and cost effective utilization and control of energy and energy resources.		• College brochure
	Solar/ Consortium	• Participant in state Energy Institute program to provide construction trades students with hands-on experience in building passive solar systems in 12-20 residential homes.	Ben Albright, State Department of Public Instruction 919/733-7421	• PE, '80
	Alcohol	• College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	William Fulford	• USDOE Announcement
	Environ- mental Education	• College offers degree programs in Pesticides and Toxicology and Environmental Engineering Technology.		• EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Randolph Technical College Box 1009 Asheboro, NC 27203 919/629-1471	Alternative	College is in the process of developing and equipping facilities to provide future programs in alternative energy sources.	W.A. Edwards, Vice President for Instruction	12/79 Survey Response
	Solar	Introduction to Solar Energy, 15-contact hour course offered through the Continuing Education department, with focus on alternate energy sources, solar components, heat and energy transfer, and solar heating.	Don Childres, ext. 30	NSEED'80
	Conservation	Other Continuing Education short courses include Saving Energy in the Home for homeowners and Energy Conservation for industry personnel.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Robeson Technical Institute Lumberton, NC 28358 919/738-7101	Environ- mental Education	College offers degree program in Pesticides and Toxicology.	Robert C. Allen President	EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rockingham Community College Wentworth, NC 27375 919/342-4261	Facilities Conservation	● In-house conservation efforts include: setting thermostats at 78° in the summer and as low as 60° in the winter in some areas; water heaters turned down in the gym and the restrooms; library hours shortened from 10 to 9 p.m.; half the fluorescent tubes and starters were removed from the hallway lighting fixtures; and dances and other events were moved from Saturdays to Friday nights, allowing shutdown of the campus on weekends. ● The college is an all-electric facility. Used 5.01 million kilowatts hours in 1971-1972; last year usage dropped to 3.04 MKW hours as result of conservation efforts and in spite of addition of new facilities totally 22,000 square feet.	Gerald B. James, President	● 4/80 AACJC Journal Article
	Humanities	● Participant in Energy and The Way We Live Forums.	Hurbert H. Hodgkin John S. Crutchfield	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Sampson Technical Institute P.O. Drawer 318 Clinton, NC 28328 919/592-8081	Solar	● Introduction to Solar Energy, 33-contact hour course offered through the Vocational Education/Air Conditioning departments. ● Solar Application, 55-contact hour course offered through the Vocational Education/Air Conditioning departments.	William Royal, ext. 223	● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southeastern Community College Whiteville, NC 28472 919/642-7141	Facilities Conservation Environ- mental Education	● College energy use reduction strategies included: installing time clocks on equipment, lowering heating in buildings, and eliminating some lighting. ● College offers Wastewater Treatment Technology program.	William D. Small Superintendent	● AED ● EPCG

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Southwestern Technical College P.O. Box 67 Sylva, NC 28779 704/586-4091	Solar	• Solar Mechanics, diploma program offered through the Industrial and Vocational Education department, with focus on solar system installation -- residential and industrial/commercial. Courses include: - Active Solar Space Conditioning - Controls, Installation, and Maintenance - Economics of Solar Energy Systems - Energy Perspectives - Fundamentals of Solar Energy - Introduction to Solar Concepts - Passive Solar Space Heating - Residential Energy Conservation - Solar Collectors - Solar Domestic Hot Water - Solar Greenhouses - Solar Lab I - Solar-Electric Systems • 2,500 square feet of solar collectors serves as a training laboratory for students in the Solar Mechanics program, and provides heat and hot water to one of the larger campus buildings. It also serves as a data collection center on solar collector technology and equipment.	Glenn Liming, ext. 215	• NSEED'80
	Environ- mental Education	• College offers degree program in Environmental Science/Health.	R. Harrison, ext. 234	• news-release 8/7/80 • EPCG • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wake Technical Institute Route 10, Box 200 Raleigh, NC 27603 919/772-0551	Nuclear	College offers degree program in Nuclear Engineering Technology.	James A. Cox, Acting President	EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Western Piedmont Community College Morganton, NC 28655 704/437-8688	Facilities Conservation	● College has developed a comprehensive energy conservation plan including responsibilities/roles of various institution personnel, implementation strategies, and energy-saving ideas.	William H. Droze, President James R. Huffman, Energy Coordinator and Electrician	● 2/80 Survey Response
	Environ- mental Education	● College offers certificate program in Wastewater Treatment Technology.		● EPCG
	Facilities Conservation	● College energy audit resulting in following adjustments: set thermostats for cooling and heating to meet federal guidelines, reduced lighting level to national standards, and installed kilowatt demand limiter for central conditioner. Results are 27% electrical and 47% heating consumption reduction.	James R. Huffman	● Verified 4/6/81

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Wilkes Community College Wilkesboro, NC 28697 919/667-7136	Consortium	College is member of state north-western regional consortium of organizations; purpose is to merge similar interest in energy-related projects to promote more cohesive efforts toward the development, conservation and management of alternative energy resources in that area of the state. Mayland Technical institute and Caldwell Community College are also members. Achievements of the consortium include: offered workshops and forums in energy technology, developed energy modules relating to energy conservation, and created a solar energy demonstration unit for display in various public places.	David E. Daniel, President	10/79 NCRD Survey
	Alternative/ methane	College is working with a local farmer on a system to produce methane gas from chicken waste.		12/79 Survey Response and Press Release
	Environ- mental Education	College offers degree program in Environmental Science/Health.		EPCG

NORTH DAKOTA



Wild Rose

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bismarck Junior College Bismarck, ND 58501 701/223-4500	Management Power Coal Mining	● Energy Resource Management, AA degree, 60 credits. ● Power Plant Technology, AAS degree, 60 credits, and Certificate, 55 credits. ● Offers Coal Mining Technology training programs.	Dr. Lloyd Anderson, Director of Admissions and Community Services	● 2/80 Dean letter ● 1979 Hamilton Study ● Verified 4/13/81

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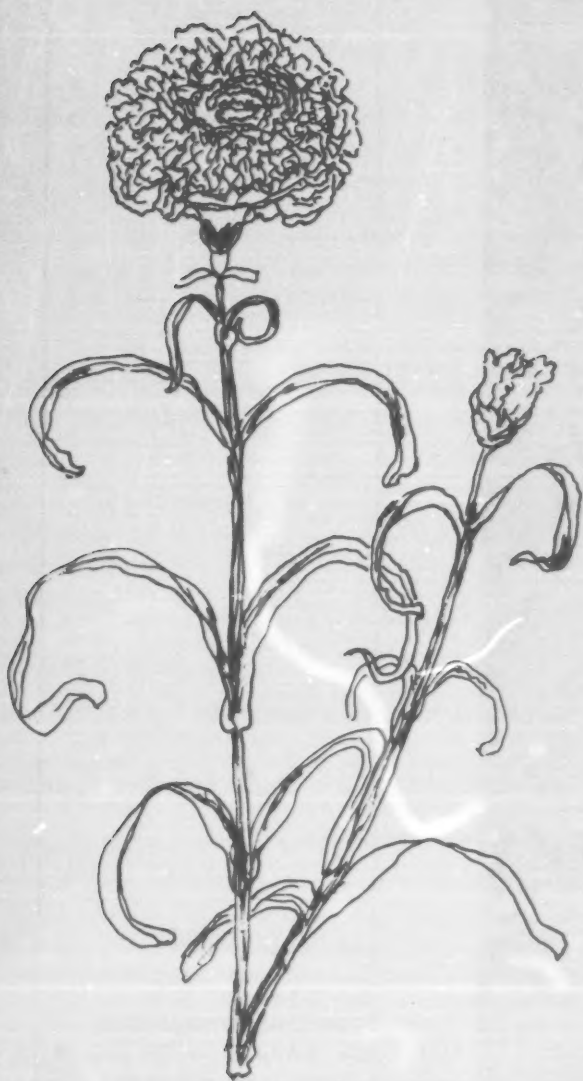
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lake Region Junior College Devils Lake, ND 58301 701/662-4951	Alcohol Alternative Humanities	• Two 4-week alcohol fuel courses for adults, 30 hours of instruction/class for 2 semester credits; completion certificate. • Proposed (summer) 3-day workshop on alcohol fuel for local teachers. • Proposed day classes- Alternative Energy Resources, Agriculture Business Management, and Farm/Ranch Management. • Participant in Energy and The Way We Live Forums; offered for credit.	Jay Olson, Agriculture Instructor Dennis F. Michaelis, President	• 2/80 Response Letter • EWLF material

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
North Dakota State School of Science Wahpeton, ND 58075 701/671-2221	Solar	● College offers Solar Energy Design-required class under Architectural Drafting and Estimating Technology Program, Associate of Applied Science. ● Experimental Reflector Solar Panel - Environmental Systems Department ● Systems and Equipment, 3-credit course offered through the Environmental Systems department, with focus on alternate energy, heat and energy transfer, introduction to solar energy, plumbing and sheet metal techniques, solar home construction, and systems installation/maintenance.	San Schimelfenig, Dean of Technology Division John Glenn 701/671-2529	● 2/80 Response Letter ● NSEED '80
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 1-day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale. ● College is experimenting with alternative farm fuels, including alcohol for gas and diesel engines and sunflower oil in diesel engines.	Lyle Warner 701/671-2174 John Derry 701/671-2562	● USDOE Announcement
	Environmental Education	● College offers degree program in Environmental Science/Health.		● EPCG
	Facilities Conservation	● College strategies have included: reduced lighting by 50%, reconstructed oil burning heating plant to use locally available coal; reset thermostats; altered ventilating system to use recirculated air in all classrooms and laboratory buildings;	Alvin C. Eckre Director, Special Services 701/671-2245	● AED ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Dakota State School of Science Wahpeton, ND 58075		and installed smaller double-glazed windows in an insulated panel to replace older, poorly insulated windows.		
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of North Dakota Williston, ND 58801 701/572-6736	Petroleum	● College offers AAS degree program in Petroleum Technology.	Garvin L. Stevens	● 2/80 Response Letter from State Energy Office



Scarlet Carnation

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Belmont Technical College Interstate 70 at Route 331 St. Clairsville, OH 43950 614/695-9500	Conservation	● College offers conservation course.	Marshall J. Piccin	● 1/79
	Coal	● College offers course Mining Technology and Land Stabilization, in Reclamation Program, AAS degree.	David Cunningham	ERTA, TERC
	Humanities	● Participant in Energy and The Way We Live Forums.	Marshall J. Piccin	● EWLF material
	Energy General	● Refrigeration, Heating Air Conditioning and Ventilation; Heating/Cooling Systems Evaluation.	William Rust	● Verified 4/9/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Ohio Technical College Newark, OH 43055 614/366-1351	Humanities	● Participant in Energy and The Way We Live Forums.	Robert J. Pond	● EWLf material
	Solar	● Energy Conservation Institute, 3-credit course offered through the Engineering Technology department, with focus on distributed solar power systems. ● Environmental Control, 3-credit course offered through the Engineering Technology department with focus on introduction to solar energy, solar heating and cooling, solar systems installation/maintenance, and solar system testing/evaluation.	Robert J. Pond	● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clark Technical College 570 East Leffels Lane Springfield, OH 45505 513/325-0691	Management	● AAS degree program in Energy Management Technology initiated in 1978, with focus on energy survey, energy conservation, heat transfer, energy conversion and non-conventional energy, but has since become inactive because of low student enrollment and industry uncertainty about value of technicians.	Albert A. Salerno, Dean	● 2/80 Response Letter
	Energy Consumer	● In 1978 joined w/ eleven sister two-year colleges in Ohio to produce a series of modules on Consumer Energy Facts. Continues to offer some modules for use by the public through Continuing Education.		
	Audit	● In 1979 College was instrumental in organizing the Ohio Technology Transfer Organization: - have had energy auditor faculty trained and have in turn trained energy auditors for other agencies, offered training for advanced boiler training/conservation - at present working on a vertical shaft windmill and a single farm solar alcohol still.		
	Humanities	● Participant in Energy and The Way We Live Forums.		● EWLF material ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clermont General and Technical College Batavia, OH 45103 513/732-2990	Facilities Conservation	In-house conservation activities include: reducing lighting in hallways and lounge areas to a minimum, scheduling Saturday classes on one end of the building allowing one heating or air-conditioning unit to be used, restricting the use of the auditorium, drawing draperies to insulate from heat or cold in expansive window areas, and operating summer sessions on a four-day week.	Daniel R. Dell, Assistant Dean	2/80 Response Letter
	Conservation	College offers a conservation course.		1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Columbus Technical Institute Columbus, OH 43216	Solar	College administered a 2-year Solar Demonstration Project (U.S. Department of Energy) to provide one academic building with 70% of its heating requirements and 30% of its cooling. The building will serve as a community model.	Russell W. Jordan 614/227-2426	
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cuyahoga Community College Western Campus 11000 Pleasant Valley Road Parma, OH 44130 216/845-4000	Audit	Energy Auditor Training, non-credit course designed to grant state certification and authority to conduct energy audits for Ohio Department of Energy. Aimed at building managers, maintenance workers, engineers and architects.	Mr. David Schaeffer, Lifelong Learning Institute	1/79 EEP

C O L L E G E	Program(s) Focus	A C T I V I T Y	Contact Information/ Person	Reference(s)
Edison State Community College 1973 Edison Drive Piqua, OH 45356 513/778-8600	Conservation	• College offers non-credit seminars; - Diagnosing Energy Consumption and Waste in Homes and Small Businesses - Survival During Extended Utility Outage - Residential Heating, Humidifying, Air Cleaning and Cooling Systems - Insulation Planning and Techniques for Homes and Small Businesses - Reducing Appliance Energy Consumption - Energy Conserving Concepts for New Construction and Energy Conserving Home Improvement Techniques - Ohio Energy Resources: Future Fossil and Alternative Energy - Environmental Aspects of the Energy Crisis - Realities of the Energy and Power Crisis - Energy Savings in Automobiles and Transportation Systems • Energy Conservation and Alternatives, 3-credit course; includes: availability of present energy sources, methods of energy conservation, energy alternatives including solar, and energy related emergency measures.	Gary W. Wilson, Director of Continuing Education	• 1/80 Response Letter
	Humanities	• Participant in Energy and The Way We Live Forums.	Harry Collins	• EWLF material

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Hocking Technical College Nelsonville, OH 45764 614/753-3591	Conservation Petroleum Humanities Environ- mental Education	● College offers a conservation course ● Certificate Program - Oil Well Servicing and Maintenance. ● Participant in Energy and The Way We Live Forums. ● College offers degree program in Environmental Science/Health.	John J. Light, President Walter Selvage	● 1/79 ERTA, TERC ● EWLF material ● EPCG

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Lakeland Community College Mentor, OH 44060 216/951-1900	Solar	● In summer College for Kids program, college offered 11 to 14 year old students a course Experimenting with Solar Energy. ● Solar Heating, 3-CEU credit course offered through the Lifelong Learning program, with focus on centralized solar power systems, distributed solar power systems, energy storage systems, heat and energy transfer, solar systems design, and testing/evaluation.	Richard G. Schmidt	● 6/80 Letter
	Humanities	● Participant in Energy and The Way We Live Forums.	Frank M. Sesel	● NSEED'80
	Conservation	● Energy Conservation, 2-CEU credit course offered through the Lifelong Learning program.	Frank M. Sesel	● EWLF material ● NSEED'80
	Facilities Conservation	● College has made adjustments and modifications in energy equipment with result that energy use has decreased in spite of addition of 41,000 square feet of space.	H.J. Roseum, Physical Plant Director	● AED

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lima Technical College Lima, OH 45804 419/227-5131	Audit/ Conservation	College offers course in energy audit and conservation.	James Biddle, President	1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lorain County Community College Elyria, OH 44035 216/365-4191	General	• College offers courses in energy mini-audits, awareness, conservation, insulation.	Omar L. Olson, President	• 1/79 ERTA, TERC
	Humanities	• Participant in Energy and the Way We Live Forums; offered for credit.	Susan McGough	• EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Marion Technical College Marion, OH 43302 614/389-4636	Conservation Awareness	College offers a course in energy conservation and has hosted a community energy awareness fair.	J. Richard Bryson, President	1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Miami University Middletown Campus Middletown, OH 45042 513/424-4444	Conservation	College offers a conservation workshop.	Carl E. Bennett, Exec. Director	1/79 ERTA, TERC

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Muskingum Area Technical College Zanesville, OH 43701	Conservation Petroleum Solar Environ- mental Education	● College offers conservation courses/workshops. ● College offers Petroleum Engineering Technology program, AA degree. ● Solar Home Heating, 10-contact hour course offered through the Lifelong Learning department, with focus on appropriate technology, heat and energy transfer, introduction to solar systems design, and systems installation/maintenance. ● College offers degree programs in Air Quality, Drinking Water/Wastewater Treatment Technology, and Environmental Engineering Technology through the Division of Engineering and Science.	C. Goehring	● 1/79 ERTA, TERC ● NSEED'80 ● LPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Ohio College of Applied Science Cincinnati, OH 45210 513/475-6531	Conservation Management Solar	● College offers conservation seminars, an energy management course and a solar energy workshop.	John C. Spille, Dean	● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Sinclair Community College Dayton, OH 45402 513/226-2830	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Introduction to Solar Heating and Cooling, 3-credit course offered through the Engineering and Industrial Technology department.	Thomas Preisser N.S. Nataraj 513/226-2835	● EWLF material ● NSEED'80

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southern State Community College Wilmington, OH 45177 513/382-6645	Solar	● College offers course in solar energy.	Lewis C. Miller	● 1/79. ERTA, TERC

C O L L E G E	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Stark Technical College 6200 Frank Avenue, N.W. Canton, OH 44720 216/494-6170	Audit Solar Humanities Conservation Solar	● College offers a 3-day Energy Audit course for state certification and a course in Residential Solar Application. ● Participant in Energy and The Way We Live Forums. ● Office of Continuing Education course Fuel Efficiency and Safety in the Boiler Room, specially designed for operators of low and high pressure boilers; 20-hour course. ● Basic Home Insulation, non-credit. ● Solar Energy Applications, non-credit with focus on solar basics, current solar devices (both active and passive systems); residential.	Leon H. Albert Director of Continuing Education, ext. 225	● 6/23/80 Letter ● EWLF material ● Verified 4/15/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Terra Technical College Fremont, OH 43420 419/334-3886	Nuclear	College offers AAS degree programs in Nuclear Power and Nuclear Technology.	Richard M. Simon, President	1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of Akron-Community and Technical College Akron, OH 44325 216/375-7220	Conservation	• College offers course in energy conservation.	Robert C. Weyrick, Dean	• 1/79 ERTA, TERC

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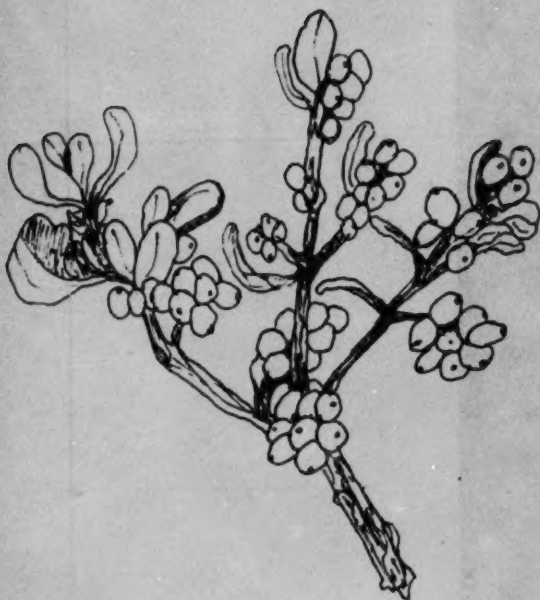
<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of Cincinnati Ohio College of Applied Science 100 East Central Parkway Cincinnati, OH 45210 513/475-6531	Solar	• Solar Heating and Cooling, 4-credit course offered through the Mechanical Engineering Technology program; students completing program classified as HVAC Craftsman with abilities in the solar area. Topics are: alternate energy sources, energy conservation, energy storage, heat and energy transfer, introduction to solar energy, materials, research, passive solar technology, solar energy policy development, solar system components, and solar system design.	Ronald W. Garrett, Asst. Professor, Mechanical Engineering Technology 513/475-6593	• 1/80 Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of Cincinnati University College Cincinnati, OH 45221 513/475-2742	Conservation	Program in Energy Management/Auditing Technology approved by the Ohio Board of Regents and serves as the prototype for the State of Ohio. Associate degree program combining courses in business, engineering and energy management. Teaches managers to audit energy utilization in commercial, institutional, and industrial facilities. Curriculum includes the principles of energy management, systems review and analysis, specialized laboratory experiences and data processing courses. Upon completion of the program, the student will receive either an Associate of Science degree or a certificate in Energy Management. Combines business, management, and humanities disciplines. 95 quarter-credit hours.	Ronald J. Temple, Dean 513/475-2742 William M. Frase, Asst. Dean for Academic Affairs 513/475-3551 Terry Thompson, Program Coordinator 513/475-5908	3/80 Response Letter - Verified 4/15/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of Toledo-Community and Technical College 2801 W. Bancroft Street Toledo, OH 43606 419/537-3311	Energy General	● Environmental Technology seminar series includes special sessions on energy, solar energy, gasohol, and transportation.	James F. Palmer 419/537-3373	● 9/80 AFS Survey
	Humanities	● Participant in Energy and The Way We Live Forums.	Jim Kamm	● Verified 4/8/81
	Audit	● Climate control technology includes energy audits program.	Jim Kamm	
	Solar	● Passive Solar Architecture credit course offered in the Architectural Technology program.	Daryl Blanchard	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Washington Technical College Marietta, OH 45750 614/374-8716	Conservation	College offers conservation course.	Donald R. Neff President	1/79 ERTA, TERC

OKLAHOMA



Mistletoe

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Carl Albert Junior College P.O. Box 606 Poteau, OK 74953 918/647-2124	Facilities Conservation	Thermostats are being set at 62°F in the winter and 78°F in summer. Evening classes no longer offered on Fridays, enabling utilities to be turned off from 4 p.m. Friday 'til Monday morning. Scheduling altered allowing students to carry a full academic load by attending class on two or three days per week. Carpooling services established by counselor.	Chuck Cole Director of Public Relations	2/80 Letter Response
	Conservation	Winterization seminar for do-it-yourselfers was held in November 1979, including instruction on insulating, installing storm doors and windows, measuring heat loss, and generally preparing for cold weather.		
	Solar	Solar Collectors class is being offered through the Community Service program; students construct a domestic solar collector from blueprints.		
	Humanities	Participant in Energy and They Way We Live Forums.		- EWLF material - Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Claremore Junior College Claremore, OK 74017 918/341-7510	Environ- mental Education	College offers degree program in Environmental Science/Health.	Richard H. Mosier, President	EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Conners St. College Warner, OK 74469 918/463-2931	Appropriate Technology	• College administers a demonstration project (Department of Labor, Appropriate Technology, Small Grants Program) designed to improve the energy efficiency of mobile homes, as a demonstration of "saw-dust concrete." Waste materials, including sawdust, wasteline and fly-ash, are used with portland cement to make a concrete-like material which can be worked with ordinary tools, accepts and holds nails. Fire resistance and good insulation factors are features.	Bryce B. Wilde	• NCRD, PE • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northeastern Oklahoma A&M College Miami, OK 74354 918/542-8441	Energy General Alcohol Solar	● Filming on a special TV show to be produced by the college to show area residents what resources are available at the college on energy conservation and alternate energy sources. The Learning Resources Center continues to build a collection of materials on various aspects of energy conservation and alternate sources. ● Sponsoring a speaker from the Agriculture Engineering Department of Oklahoma State University. Free public forum is part of an on-going program of providing information and increasing awareness of energy problems and possible solutions. ● Staff members have participated in the Agriculture Alcohol Seminar sponsored by Oklahoma State University. ● A staff member is completing construction of an experimental distillation system for the campus to produce fuel to supplement gasoline for college vehicles. Residue is to be used for feed for animals at the college farm. ● An evening course is offered in solar construction.	Charles H. Angle, Dean of Instruction ext. 202	● 1/80 Response Letter ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oklahoma State Technical Institute 4th and Mission Rd Okmulgee, OK 74447 918/756-6211	Conservation	College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.	Dr. Ed Darby Asst. Director for Academic Affairs	CORD material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oklahoma State University, The Technical Institute 900 North Portland Street Oklahoma City, OK 73107 405/947-4421	Management	College is developing plans for an Energy Management Technology program.	Russell L. Kline, Head, Industrial and General Engineering Technologies	7/7/80 Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oscar Rose Junior College Midwest City, OK 73110 405/733-7311	Environ- mental Education	College offers degree programs in Wastewater Treatment Technology and Environmental Science Technology.	Joe Packnett, President	- EPCG - Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
South Oklahoma City Junior College 777 South May St. Oklahoma City, OK 73159 405/682-1611	Humanities Energy General	• Participant in Energy and The Way We Live Forums. • College has offered a sequence of seminars through the Community Services department, including: - Underground Dwellings - Solar Energy Applications for Home and Business - Insulating and Equipping for Money and Energy Savings - Underground Structures for Living and Working - Active Solar Energy Systems for Home and Business - Wind Energy Applications for Home and Business - Passive Solar Energy Systems for Home and Business - Retrofitting Solar Energy Systems To Existing Structures	Patrick Cross, 405/682-7577	• EWLF material • 12/79 Survey Response

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Tulsa Junior College 909 South Boston Avenue Tulsa, OK 74119 918/587-6561	Facilities Conservation	● College strategies include: - requested and received two independent company energy audit surveys and proposals for energy management equipment - janitorial work schedule was re-arranged to eliminate the need for 24-hour building operation; now on a 18-hour time span - light switch stickers and memos encouraging conservation were initiated with increased help from "patrol" campus security - car pool efforts were accomplished through state-sponsored car pooling program - thermostats were reset - summer classes are scheduled for a four-day week - hot water tanks are being installed to accommodate the domestic demand during the summer and allow the large boilers to be shut down.	Robert N. Melott V.P., Computer Services and Data Systems	● 1/1/80 Response Letter
	Humanities	● Participant in Energy and the Way We Live Forums.	Sue Wilson	● EWLF material
	Environ- mental Education	● College offers degree program in Environmental Science/Health.		● EPCG

OREGON



Oregon Grape

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Blue Mountain Community College P.O. Box 100 Pendleton, OR 97801 503/276-1260	Facilities Conservation	● Encourages in-house car pooling services.	Larry Eddy, Science Department	● 2/80 College Brochure
	Greenhouse	● Completed a greenhouse equipped with solar panels as an alternate energy source. An application for a more sophisticated control system will complete project.		
	Alternative	● Alternative Energy Sources seminar; highlights biofuels systems, wind systems, wood heating, and solar systems.	Ellsworth Mayer	● EWLF material
	Humanities	● Participant in Energy and The Way We Live Forums.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Oregon Community College Bend, OR 97701 503/382-6112	Energy General Humanities	● College offers variety of energy seminars. ● Participant in Energy and The Way We Live Forums.	Ward Tongsfeldt	● 2/80 Survey Response ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Chemeketa Community College Salem, OR 97303 503/399-5121	Humanities Environ- mental Education	• Participant in Energy and The Way We Live Forums; offered for credit. • College offers degree in Potable Water Technology.	Lori Campbell	• EWLF material • EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clackamas Community College Oregon City, OR 97045 503/656-2631	Humanities Solar Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● Introduction to Appropriate Energy, 3-credit course offered through the Physical Science department, with focus on introduction to solar energy, passive solar systems, solar systems design, and solar heating. ● College offers degree programs in Potable Water Technology and Pesticides and Toxicology.	William Hargadine Mike Aronson	● EWLF material ● NSEED'80 ● LPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clatsop Community College Astoria, OR 97103 503/325-0910	Humanities Environ- mental Education	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers degree programs in Pesticides and Toxicology and Environmental Studies, and a 1-year program in Environmental Science/Health.	Melvin Berens	● EWLF material ● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lane Community College 4000 East 30th Ave. Eugene, OR 97405 503/747-4501	Solar	● Non-credit course Design and Installation of Solar Hot Water Systems, includes designing and installing 5 separate hot water systems. ● Non-credit course Solar Fundamentals for Lane County, with focus on designing, sizing, buying, installing and building either passive or active solar systems. ● Three-credit course Solar Energy Systems in Construction, a special training program, emphasizes types of passive-active systems. ● Three-credit course Special Topics in Science: Solar Energy, emphasis on nature of energy, sources for the 21st century, properties and intensities of solar, and the economics of solar energy.	Dick Newell Larry Murray, Energy Education Task Force Chairman Allan Gubrud, Science Department	● 1/80 EEP
	Energy General	● Four-credit course Future of Energy, with instruction in energy history, sources and uses, energy and the economy, policy, abuses, and conservation.	George Alvergue and Allan Gubrud, Social Science and Science Divisions	
	Humanities	● Participant in Energy and The Way We Live Forums.	James Ellison	● EWLF material
	Facilities Conservation	● College implemented a three-phase program. The first phase included: parking lot lights modification, reductions in interior lighting, 40 degree reduction in hot water temperature, increase in mixed-air temperature, manual monitoring of boilers to control peak demand, and involvement of faculty, staff, and students in conservation measures. The second phase included: use of	Eldon Schafer, President	● Video-tape

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lane Community College Eugene, OR 97405 <u>CONTINUED</u>		a computer to automatically monitor and control heat/cooling system, and installation of two 60,000 gallon hot water storage tanks in which hot water is stored in the evening for use in the daytime. The third phase will involve: installation of heat recovery units in the laundry and other appropriate locations, construction of greenhouse over the hot water storage tanks, landscaping, storage of cold water in the tanks during the summer to assist air conditioning system, and application of solar collectors.		
	Environ- mental Education Conservation	● College has received national recognition for its facilities conservation efforts: in 1977 it received the National Association of College and University Business Officers grand prize and the Governor's Energy Conservation Award; in 1979 it received the Honeywell Energy Conservation Award, one of two education institutions to have been honored. ● College offers degree program in Drinking Water/Wastewater Treatment Technology. ● Energy Management Technician, AAS program that provides option in solar construction, business, drafting and technical instruction. ● Residential Energy Analyst, certificate program that prepares persons to perform energy audits on	John Jacobs, Science Al Gubrud, Instructor John Jacobs, Science Al Gubrud, Instructor	● EPCG ● Verified 4/15/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lane Community College Eugene, OR 97405		residential and small commercial buildings. Courses for both programs include: - Energy Technology 1-3, 4-credits - Residential Energy Use Analysis, 3-credits - Solar Hot Water Systems, 3-credits - Weatherization Products, 2-credits - Air Conditioning Fundamentals, 4-credits - Alcohol Fuel Production and Use, 3-credits - Alternative Energy Sources, 3-credits - Design and Sizing Solar Systems, 3-credits - Electric Power and Illumination Systems, 3-credits - Energy Conservation, 2-credits - Energy Economics, 3-credits - Energy Planning and Management, 3-credits		
<u>CONTINUED</u>	Solar	• Non-credit course Design and Installation of Solar Hot Water Systems, includes designing and installing five separate hot water systems. • Four-course sequence for Construction Technology students interested in solar. Courses include: Solar Energy Systems (3-credits); Solar Collectors and Storage (2-credits); Passive Solar Techniques in Local Construction (3-credits) and Solar Domestic Hot Water Systems (2-credits).	Dick Newell, Adult Education Larry Murray, Special Training Programs, Construction Technology	

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Linn-Benton Community College 6500 S.W. Pacific Boulevard Albany, OR 97321 503/928-2361	Humanities	● Participant in Energy and The Way We Live Forums.	William A. Siebler	● EWLF material
	Information Center	● Developed and administers an energy Information Center at the college.	Peter C. Scott, Director, Science/ Technology Division	● 2/6/80 3/6/80 Letters
	General	● Continuing Education how-to-do-it workshops on six different topics. ● College offers optional Energy Conservation and Solar Energy program in AAS Civil/Mechanical Engineering Technology curriculum, with focus on energy systems management, solar energy and energy conservation systems, energy economics, computer science, and practical work experience in energy systems planning; graduates are prepared to work as skilled engineering technicians. Special solar courses include: - Alternative Energy Sources, 4-credit course with focus on alternate energy sources, appropriate technology, conservation, heat and energy transfer, energy storage systems, solar systems design, and wind energy conversion systems. - Energy Systems Management, 3-credit course with focus on introduction to solar energy, marketing/economic analysis, centralized solar power systems, distributed solar power systems, process heat, solar heating and cooling, and wind energy conversion systems.	Dave Miller	● NSEED'80

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Linn-Benton Community College Albany, OR 97321		● Solar Energy, 3-credit course with focus on bioconversion, conservation, heat and energy transfer, energy storage systems, passive solar systems, materials, solar home construction, solar systems design, and solar heating.		
<u>CONTINUED</u>	Solar & Wind	● Passive solar building and 3 KW windmill demonstration projects with funding from DOE, NCAT, NSF, CETA, and local resources.		
	Materials Development	● Oregon curriculum development project that produced high quality technical materials; presented in six modules.		
	Teacher Workshops	● Training program for community college instructors from the area with support from USDOE.		
	Environmental Education	● College offers certificate and degree programs in Drinking Water/Wastewater Treatment Technology.		● EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mt. Hood Community College 26000 Southeast Stark Gresham, OR 97030 503/667-1561	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Heating with Solar Energy, 3-credit course offered through the Technical department, with focus on solar components, conservation, energy storage systems, heat and energy transfer, materials, passive solar systems, and domestic hot water.	John Hartnett Bill Lloyd 503/667-7480	● EWLF material ● NSEED'80

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rogue Community College Grants Pass, OR 97526 503/479-5541	Solar	● Natural Energy Conservation, Domestic Solar Water Heater, 3-credit course offered through the Science and Small Farm Management department, with focus on alternate energy sources, appropriate technology, heat and energy transfer, energy storage systems, solar marketing/economic analysis, passive solar systems, solar energy policy development, installation/maintenance, and solar heating.	Joseph Lilly	● NSEED'80

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Treasure Valley Community College 650 College Blvd. Ontario, OR 97914 503/889-6493 ..	Alcohol	● College has an alcohol fuels training program.	Howard W. Brock St. Dept. of Educ. Emery J. Skinner President.	● 7/80 Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Umpqua Community College P.O. Box 967 Roseburg, OR 97470 503/440-4600	Solar	• Solar Technical Training, certificate program offered through the Community Education department, with focus on solar energy education and do-it-yourself home installation.	Sherril L. Wells, ext. 601	• NSEED'80 • Verified 4/6/81
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Mountain Laurel

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Admiral Peary Area Vocational-Tech. School Edensburg, PA 15931	Coal Mining	• Offers Coal Mining Technology training programs		• 1979 Hamilton Study

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Community College of Allegheny County Allegheny Campus 808 Ridge Avenue Pittsburgh, PA 15212 412/237-2525	Facilities Conservation	Measures include: automatic clock system for night set back on thermostat operation; 200 double hung single glazed wooden windows in West Hall have been replaced with new double glazed vinyl coated wooden windows; 500 ceiling and wall mounted cylindrical light fixtures have been replaced with new fluorescent fixtures; a brick and glass wall structure with a sheet metal roof will be renovated to eliminate large glass areas, and to utilize an aluminum/insulation sandwich panel for exterior walls and roof; reduction of all interior temperatures; review of all lighted areas to bring candle power output in line with latest recommendations; phase out of all non-energy saving fluorescent lights and ballasts as they become burned out; smaller buildings will have entire fluorescent tubes replaced with energy saving units immediately; utilization of water saving valves in all college toilets using standard flush valves; a 35% savings in water is anticipated. All of the incandescent exterior lamps have been replaced with low pressure sodium.	Robert Hamilton, Director/Physical Plant	2/80 Survey Response - Verified 4/23/81
	Alternatives	Education programs include Solar Energy System Design course (Adult Education), Energy Conservation Seminar (Adult Education) and How to Beat the Energy Crisis at Home (two-day Adult Education workshop).	H. Catherine Onufer, Director, Special Projects	
	Conservation	College has proposed program for Energy Management Technician training	Wilbur Kimbrough, Department Head,	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Community College of Allegheny Campus Pittsburgh, PA 15212	Conservation	College has proposed program for Energy Management Technician training.	Wilbur Kimbrough, Department Head, Physics Department	
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Community College of Beaver County Monaca, PA 15061 412/775-8561	Nuclear	• AAS degree program in Nuclear Quality Assurance Technology.	Lawrence S. Cook, Division Director	• 1/79 ERTA, TERC • Verified 4/2/81

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Delaware County Community College Media, PA 19063 <u>CONTINUED</u>	Humanities	● Conserving Energy Saves Consumer Dollars, 20-contact hour course offered through the Continuing Education department, with focus on alternative energy sources and conservation. ● Solar Energy, 3-credit course offered through the Engineering and Technologies department, with focus on bioconversion, centralized solar power systems, energy storage systems, heat and energy transfer, ocean systems, photoconversion, solar system design, and wind energy conversion systems. ● Participant in Energy and The Way We Live Forums; offered for credit.	Imre A. Szalai	● ENLF material ● Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Harrisburg Area Community College Harrisburg, PA 17110 717/236-9533	Conservation Solar Environ- mental Education	● College offers an energy awareness workshop. ● Solar Heating, course offered through the Community Resources Institute with focus on do-it-yourself home installation. ● Solar Heating - Food and Heat Producing Greenhouses, 9-contact hour course offered through the Community Resources Institute, with focus on alternate energy sources, appropriate technology, conservation, heat and energy transfer, energy storage systems, solar home construction, solar systems design, and distributed solar power systems. ● College offers certificate and degree programs in Drinking Water/Wastewater Treatment Technology.	Hazel Brown 717/236-9535	● 1/79 ERTA TERC ● NSEED'80 ● LPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Keystone Junior College La Plume, PA 18440 717/945-5141	Solar	● College offers solar seminar, and has a solar project which monitors solar index and operates a partial heating system.	John B. Hibbard, President	● 1/79 ERTA, TERC ● Verified 4/2/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lehigh County Community College 2370 Main Street Schnecksville, PA 18078 215/799-1500	Alternate	• AAS degree program in Alternate Energy Technology; 60 credits; concentrations on the design, installation and maintenance of active and passive solar systems and small wind electric systems. Special solar topics include: architecture-solar specialization, general contracting-specialization in solar design/installation, heating/ventilation/air conditioning-solar, solar systems installation-residential, solar technology-instrumentation/controls/design/maintenance, plumbing and sheet metal-solar specialization, and do-it-yourself home installation.	J. Robert Walker	• 12/79 Program brochure
	Energy General	• Community Service courses on active and passive solar systems; residential energy conservation, includes insulation, wood stoves, and small wind-electric systems.		• NSEED '80
	Alcohol	• College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.		• USDOE Announcement

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Montgomery County Community College Blue Bell, PA 19422 215/643-6000	Awareness	● College has offered energy awareness workshops.	Leroy R. Brendlinger, President	● 1/79 ERTA, TERC

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northampton County Area Community College Bethlehem, PA 18017 215/865-5351	Humanities Environ- mental Education	• Participant in Energy and The Way We Live Forums; offered for credit. • College offers degree program in Environmental Studies.	Douglas E. Heath, ext. 246	• EWLF material • EPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Westmoreland County Community College Youngwood, PA 15697 412/836-1600	Humanities Energy General Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College offers courses/seminars in energy auditing, conservation, and solar. ● College offers degree program in Environmental Studies.	Robert Updegraff	● EWLF material ● 1/79 ERTA, TERC ● LPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Williamsport Area Community College Williamsport, PA 17701 717/326-3761	Humanities	● Participant in Energy and The Way We Live Forums.	Russell Mauch, ext. 231	● EWLF material
	Solar	● Plumbing and Heating, 200-contact hour course, includes stress on solar technical training, solar system installation-residential.	George C. Krause Building Tech. Dept.	● NSEED '80
	Facilities Conservation	● Greenhouse heat ducts were rearranged and doors insulated to combat winter cold.	William W. Fritz, Dean	● AED



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Rhode Island Junior College Lincoln, RI 02865 401/825-1000	Humanities Facilities Conservation Environ- mental Education	● Participant in Energy and The Way We Live Forums. ● College has applied the most efficient heating, cooling, and lighting systems possible in large 7-story building, designed as multi-purpose campus. ● College offers degree program in Environmental Engineering Technology.	Americo Ottaviano Priscilla A. Ling, Public Relations 401/825-2161	● EWLF material ● AED ● LPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Woonsocket Area Vocational Tech. Facility 400 Aylsworth Avenue Woonsocket, RI 02895	Environ- mental Education	• College offers degree program in Environmental Studies through the Environmental Control Program.		• EPCG

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Aiken Technical College P.O. Drawer 696 Aiken, SC 29801 803/593-9231	Solar	• Two solar energy seminars through continuing education. • Solar flat plate collector active system demonstration unit built by second year engineering technology students. • Solar oven built by students. • Heat Power, 4-credit course offered in Electro-Mechanical Engineering Technology program, with stress on heat and energy transfer.	Ash Little, President Robert F. Epps, III Dean of Instruction	• 2/80 Dean letter response
	Humanities	• Participant in Energy and The Way We Live Forums.	Charles W. Blackwell ext. 316	• NSEED '80
	Facilities Conservation	• Car pooling surveys recently conducted for both students and faculty; reduced thermostats to 65° F in winter and 78° F in summer; caulked cracks in buildings; installed heat pumps in a recently constructed building; installed a large tank for fuel oil as a back up for natural gas heating, had boilers converted so they can operate on either natural gas or fuel oil; in recent expansion of welding shop had a special air cleaner installed so that heated air can be cleaned and recirculated to save energy; have reduced temperatures of hot water heaters.	Fred W. Langdon, Jr. ext. 315	• EWLF material
	Conservation Audits	• Energy Conservation Technology (audits) certificate program.		• 1/79 ERTA, TERC
	Conservation	• College soon to be identified as the location for an energy extension center to promote conservation of energy in South Carolina.	Evan S. Flynn, Dean of Continuing Education, ext. 261	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Aiken Technical College Aiken, SC 29801	Nuclear	• Nuclear Engineering Technology, AAS degree.	Tek Chand, Department Head	• 4/24/81 Telephone • Verified 4/2/81
<u>CONTINUED</u>				

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Chesterfield- Marlboro Tech. College P.O. Drawer 928 Cheraw, SC 29520 803/537-5286	Solar	● Conversion of Solar Energy, 4-credit course offered through the Air Conditioning department, with focus on energy storage systems, greenhouse techniques, heat and energy transfer, plumbing techniques, process heat, sheet metal techniques, solar swimming pool heating, solar systems design, and solar systems installation/maintenance.	Donald R. Smith	● NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Denmark Technical College Denmark, SC 29042 803/793-3301	Nuclear	College offers an AA degree program Nuclear Engineering Technology.	John W. Henry, Jr. President	1/79 ERTA, TERC

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Florence-Darlington Technical College P.O. Drawer F-8000 Florence, SC 20501 803/662-8151	Humanities	• Participant in Energy and The Way We Live Forums.	Mickey Foster	• EWLF material
	Nuclear	• College offers Nuclear Engineering Technology program, associate degree.		• 1/79 ERTA, TERC
	Solar	• Conversion of Solar Energy, 4-credit course offered through the Climate Control Technology program, with focus on centralized solar power systems, distributed solar power systems, solar heating, solar swimming pool heating, solar systems design, and solar systems installation/maintenance.	Edward Jackson, Jr. ext. 299	• NSEED'80
	Environmental Ed.	• College offers degree program in Drinking Water/Wastewater Treatment Technology.		• EPCG

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Greenville Technical College Greenville, SC 20606 803/242-3170	Management	● Energy Management Technology, AA degree program initiated recently in cooperation with the U.S. Department of Education and the Center for Occupational Research and Development, Waco, TX. The degree program is administered by the Engineering Technology Division of the college. Program graduates will qualify to develop and maintain industrial production equipment, as energy auditors, as support technicians for engineers in research labs, as maintenance directors in businesses/institutions/hotels/apartments, and as sales and installation technicians for new energy-related equipment.	Thomas E. Barton, Jr President William K. Brown Energy Management Department	● 8/7/80 Letter
	Conservation	● Homeowners Guide to Saving Energy, 6-days, Continuing Education course.		
	Audit	● Offered an energy audit program in November 1979 which was supported by federal funds. Sixty building superintendents were trained.		
	Wood	● One-day seminars have been held on Wood Burning Stoves and Building Temperature Regulations.		
	Solar	● Three-day seminar on Solar Energy and Energy Efficiency in the Home.		
	Information Center	● Telephone information center called POLLY (Phone Our Listening Library Yourself) provides free information. Tapes include: Decreasing Your Light Bills, Pictures That Heat, How to Split and Store Firewood, Energy Unit 1990, Total Supply, Nuclear, Coal, Natural Gas, Oil and Alternatives.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Greenville Technical College Greenville, SC 20606	Facilities Conservation	● In-house car pool services. ● In-house conservation measures include lumping printing jobs and adhering to federal conservation guidelines.		
	Environmental Ed.	● College offers degree program in Environmental Engineering Technology.		● EPCG
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Horry-Georgetown Technical College Highway 501 East Conway, SC 29526 803/347-3186	Solar	● Conversion of Solar Energy, 4-credit course with focus on alternate energy sources, appropriate technology, solar components, conservation, energy storage systems, heat and energy transfer, solar systems design, installation/maintenance, and solar systems testing/evaluation.	Wade Harper, ext. 262	● NSEED'80

C O L L E G E	Program(s) Focus	A C T I V I T Y	Contact Information/ Person	Reference(s)
Midlands Technical College P.O. Drawer Q Columbia, SC 29250 803/796-1266	Solar	● Mechanical Engineering Technology program has modified its Air Conditioning program to include theoretical and practical training in solar heating, selection of solar panels, solar hot water supplements, etc.	JoAnn Jeter Beltline Campus Manager	● 3/80 Response Letter
	Alcohol	● College is exploring the possibility of reopening the college's unit operations lab, which is fitted with a large distillation column, for training individuals in gasohol production. ● College hosted an Alcohol Fuels Seminar (2/80), co-sponsored by AACJC and The National Gasohol Commission.		
	Facilities Conservation	● College has initiated a variety of activities, including: - encouraging car-pooling by promoting it and using the college as a clearinghouse - the college's parking lot has been relined with 33% of it being designated "compact" parking - reassignment of classrooms during the summer quarter to enable the college to close off large portions of the facilities, also adjusting the custodial contract during this period and saving approximately \$6,000 ● College has developed an energy conservation plan which includes: abiding by federal energy conservation guidelines, critically		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Midlands Technical College Columbia, SC 29250 <u>CONTINUED</u>	Humanities	analyzing energy use and impact of conservation measures, limit use of facilities by outside groups to normally opened areas and those specifically set aside, limit use of hot water to critical areas, prohibit use of space heaters, apply energy efficiency criteria to all equipment purchased in future, shut off unnecessary outside lighting at 11 p.m. and disconnect electric water coolers during winter months. • Participant in Energy and The Way We Live Forums.	Paul D. Jarvis	• EWLF material • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Piedmont Technical College Greenwood, SC 29646 803/223-8357	Solar	• Solar Energy for Climate Control, 4-credit course offered through the Heating and Air Conditioning department, with focus on solar components conservation, energy storage systems solar domestic hot water, solar heating, solar systems design, and solar systems installation/maintenance.	John Ledford, ext. 64	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Spartanburg Technical College Spartanburg, SC 29303 803/576-5770	Humanities Solar	• Participant in Energy and The Way We Live Forums. • Courses offered through the Continuing Education department include: - Basic Solar Heating for the Home, do-it-yourself home installation course offered through the Continuing Education department. - Basic Solar Heating, 12-contact hour course with focus on solar components and solar heating. - Passive Solar Heating, with focus on principles and applications; with the S.C. Energy Extension Service. - Boiler Seminar, with focus on fluidized bed, multi-fuel boilers, heat recovery equipment, and maintenance and engineering; with the S.C. Energy Extension Service. - Active Solar Heating for Homes and Businesses, with focus on trickle system, closed hydronic system, and hot air system; with S.C. Energy Extension Service. - Micro and Small Scale Hydropower, with focus on applications for farms and industrial sites; with the S.C. Energy Extension Service. - Energy Economics, with focus calculating heating and cooling loads, applying an energy audit, and justifying alternative systems; with the S.C. Energy Extension Service.	Vickie Propst J. Hearthly John R. Watts, ext. 206 Vickie Propst, Director, Continuing Education	• EWLF material • NSEED'80 • NSEED'80 • Verified 4/23/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Sumter Area Technical College 506 N. Guignard Drive Sumter, SC 29150 803/773-9371	Humanities Environ- mental Alcohol Solar	● Participant in Energy and The Way We Live Forums. ● College offers degree programs in Pesticides and Toxicology and Environmental Engineering Technology. ● College has designed and built an alcohol fuel plant as a demonstration program for local farmers. Corn and sweet potatoes have been used successfully as feedstocks. Seminars will be held in summer 1981. Project is in conjunction with the Sumter County Council. ● Solar flat plate heater (passive) system construction course offered through the Continuing Education department.	Dianne P. Brandstadter ext. 288 John McKay, ext. 242 George Jeffcoat Gus Becker, ext. 260	● EWLF material ● EPCG ● 3/24/81 Letter ● Verified 4/7/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Tri-County Technical College Pendleton, SC 29670 803/646-8361	Solar	• Solar Energy and the Home Owner, 24-contact hour course offered through the Continuing Education department. • Solar Energy Applications, 4-credit course offered through the Air Conditioning and Refrigeration department, with focus on solar components, energy storage systems, introduction to solar energy, passive solar systems, plumbing techniques, domestic hot water, solar heating, solar systems testing/evaluation.	Don C. Garrison President Phillip W. Fairey Joe Edwards, ext. 302	• NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Trident Technical College P.O. Box 10367 Charleston, SC 29411 803/553-2375	Solar	• Solar Heating, 66-contact hour course offered through the Air Conditioning and Refrigeration program, with focus on heat and energy transfer, solar components, solar systems design, and solar heating.	James L. Moore 803/572-6180	• NSEED'80 • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
University of South Carolina Beaufort Regional Campus 100 S. Ribaut Road Beaufort, SC 29902 803/524-7112	Petroleum Solar	• College offers non-credit petroleum energy course. • Solar Energy Applications, 4-credit course offered through ACR department, with focus on centralized solar power systems, solar components, energy storage systems, heat and energy transfer, materials, plumbing techniques, systems installation/maintenance, and systems testing/evaluation.	Darwin B. Bashaw, Dean A. Spivey, ext. 289	• 1979 Hamilton Study • NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Williamsburg Technical College Kingstree, SC 29556 803/354-7423	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● College has conducted facilities audit with engineering consultant firm and, as a result, has: installed seven-day timer clocks on all resistant type heaters, discontinued the use of one 300 and one 500 gallon hot water heater which was replaced in two areas by a 20 gallon hot water heater, replaced standard lighting with energy efficient lighting in all buildings, placed all outside lights on an automatic timer and relay except standing lights, replaced all outside mercury vapor lighting by high pressure sodium lights, and adjusted heating and cooling temperatures to meet federal guidelines. The College has reduced the KWH used since 1977 by 25 percent, while adding the 6th day to the college operating schedule.	Earl Gowdy John T. Wynn, President Bob Greer, ext. 54	● EWLF material ● Verified 4/6/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Black Hills State College Junior College Div Spearfish, SD 57783 605/642-6158	Conservation Humanities	● Conservation classes and workshops offered. ● Participant in Energy and The Way We Live Forums; offered for credit.	Arthur W. Nelson Chairman	● 1/79 ERTA, TERC ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mitchell Vocational-Tech. School 821 North Capital Mitchell, SD 57301 605/996-6671	Solar	• Solar Water Heating, course offered through the Heating and Air Conditioning department.	Carroll Hunstad, ext. 125	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Oglala Sioux Community College Box 439 Pine Ridge, SD 57700 605/867-5110	Alcohol	College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Roberta Barbalace	USDOE Announcement

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Chattanooga State Technical Community College Chattanooga, TN 37406 615/622-6262	Nuclear Humanities Solar	● Nuclear Technology program, AA degree. ● Participant in Energy and The Way We Live Forums. ● Through the Heating, Ventilation, and Air Conditioning Technology program, the college offers several course options, including Alternative Energy Technology (3-credits) Heating/Ventilation/Air Conditioning/Solar Control Systems (4-credits) Passive Design Fundamentals (3-credits), and Solar Energy System Design (3-credits). ● College also offers Solar Installation Certificate Program, with focus on mechanical/electrical contracting, solar system installation-residential, solar system installation-industrial/commercial, instrumentation, controls, design, maintenance, and home installation. Certificate program includes course (3-credits) Legal Aspects of Solar Applications.	Linda Moss, ext. 217 Terry E. Townsend ext. 258	● 1/79 ERTA, TERC ● EWLFF material ● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cleveland State Community College P.O. Box 1250 Cleveland, TN 37311 615/472-7141	Facilities Conservation	● Implemented a 4-day academic and work week in September 1979. A study was conducted during the fall quarter, 1979, to determine savings in electrical and natural gas usage. The study revealed that the college experienced an average reduction of 8.7% in electrical usage and an average reduction of 28.6% in natural gas. A second study showed that 90% of the students and 73% of the college employees favored the shortened week. Students saved an average of 2.38 gallons of gasoline per week and college employees saved 1.69 gallons per week, for a yearly savings of more than 100,000 gallons of gasoline.	L. Quentin Lane, President	● 1/80 Response Letter
	Humanitiies Solar	● Participant in Energy and The Way We Live Forums. ● Faculty Development Workshops in Energy Alternatives, program offered through the Community Services, Continuing Education department. ● Workshop in Energy Alternatives, 6-credit course offered through the Community Services, Continuing Education department, with focus on alternative energy sources.	Buford M. Guy, Jr. ext. 287	● EWLF material ● NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Cumberland College Lebanon, TN 37087 615/444-2562	Humanities Energy Education	● Participant in Energy and The Way We Live Forums. ● College offered 3-semester hour course for teachers and the general public (summer 1980).	Jack Howard	● EWLF material ● Verified 4/9/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Motlow State Community College Tullahoma, TN 37388 615/455-8511	Solar	● Two courses offered through the Engineering Technology department are: - Solar Energy Applications, 3-credit course with focus on heat and energy transfer, energy storage systems, solar marketing/economic analysis, solar home construction, solar systems design, systems installation/maintenance, and solar heating. - Solar Energy Theory, 4-credit course with focus on solar components, heat and energy transfer, energy storage systems, solar systems design, systems testing/evaluation, solar domestic hot water, and solar heating.	Monty G. Thomas, ext. 241	● NSEED'80 ● Verified 4/17/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Roane State Community College Patton Lane Harriman, TN 37748 615/354-3000	Facilities Conservation	● College energy use evaluation team responsible for suggestions on how the college can conserve energy, and the college has established a computerized car pooling system.	Fred Martin, Administrative Services	● Verified 4/28/81
	Conservation Alternative	● College offers non-credit activities such as Earth Sheltered Homes and three day Alcohol Fuel Production Workshops.	Paul E. Goldberg, Community Services	
	Coal	● College offers Coal Mining Technology AAS degree program which consists of 94 quarter hours of instruction plus nine hours of internship.	Harold L. Underwood, Academic Affairs	
	Energy General	● College offers various credit energy-related classes such as Energy and Society, Concepts in Energy, Environmental Science, and Earth Science.	Harold L. Underwood, Academic Affairs	
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	James Doyle, Social Science	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
State Technical Institute at Knoxville 3435 Division St. Knoxville, TN 37919 615/637-4262	Solar	● College offers Alternative Energy Specialization in its Mechanical Engineering Technology program. Courses include: - Active Solar Design - Alternative Fuels and Systems - Introduction to Solar Energy and Conservation - Passive Solar Design - Special Topics (includes ocean systems and photovoltaics) - Wind and Water Power Systems	Dwight Magnuson	● NSEED'80

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
State Technical Institute at Memphis 5983 Macon Cove Memphis, TN 38134 901/388-1200	Solar	• Solar Energy I, 4-credit course offered through the Architectural Engineering Technology department, with focus on conservation, heat and energy transfer, introduction to solar energy, materials, passive solar design, solar domestic hot water, solar home construction, and solar systems installation/maintenance.	Frank R. Nichols 377-4154	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Volunteer State Community College Nashville Pike Gallatin, TN 37066. 615/452-8600	Conservation Environ- mental Education	• College offers AAS degree in Conservation and Environmental Technology.	Joan Oathaut, Coordinator, Career, Vocational, and Technical Education Programs 615/741-3215	• 12/79 Survey Response from State Energy Office

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Walters State Community College Morristown, TN 37814 615/581-2121. . .	Humanities Alcohol	● Participant in Energy and The Way We Live Forums; offered for C.E.U. credit. ● Through Community Services division, 3-day workshops in the theory and actual production of alcohol fuels are offered.	Jack E. Campbell President Diane B. Briscoe, ext. 277. . . . Dr. Jim Coburn, ext. 275	● EWLF material ● Verified 4/28/81



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Alvin Community College 3110 Mustang Road Alvin, TX 77511 713/331-6111	Energy Information Center	● With the University of Texas at Austin, the college has organized an information/education center on alternative energy sources -(specifically geopressured/geothermal energy) energy sources, designed to educate the students as well as the community. Objectives are to design and develop programs for presentations and short courses on geothermal energy information.	Bill Horine, Director	● 2/80 NCRD
	Humanities	● Participant in Energy and The Way We Live Forums	Troy Lewis	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Amarillo College Amarillo, TX 79718 806/376-5111	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Alternative Energy Sources, 3-credit course offered through the Physical Sciences department, with focus on alternate energy sources, distributed solar power systems, passive solar heating, and wind energy conversion systems. ● Solar Systems Seminar, 15-contact hour course offered through the Continuing Education department, with focus on appropriate technology, heat and energy transfer, solar components, materials, passive solar systems, and solar home construction. ● Solar Systems, Design and Installation, 45-contact hour course offered through the Continuing Education department, with focus on conservation, energy storage systems, introduction to solar energy, plumbing techniques, solar domestic hot water, solar heating, installation/maintenance, and systems testing/evaluation.	M.C. Cox Earl H. Gilmore ext. 2554 Charles E. Gaithe ext. 2208 Clifford W. Siess ext. 2209	● EWLF material ● NSEED'80
	Information Center	● College has established an Energy Information Center with the cooperation of local business and civic organizations. Scope and purposes of the Center are not yet defined. Center was conceived during the Energy & the Way We Live Forum program.	Earl Gilmore	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Amarillo College Amarillo, TX 79718	Facilities Conservation	College has installed a computerized energy management system that connects all cooling units and activates the appropriate equipment to cool individual buildings.	George H. Fowler Physical Plant Director	- AED - Verified 4/7/81
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Texas College Killeen, TX 76541 817/526-1211	Solar	• Solar Energy Systems Technology, AA degree program offered through the Technology department; curriculum stresses solar system installation-residential, solar system installation-industrial/commercial, solar instrumentation, controls, design, and maintenance. Courses include: Principles of Solar Energy (3-credits), Solar Cooling Systems (4-credits), Solar Energy Special Projects (3-credits), and Solar Heating Systems (4-credits). College also offers Solar Energy Systems Specialist, certificate training program.	Clarence Tresler 817/526-1211	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Dallas County Community College District Dallas, TX 75202 214/746-2125	Conservation	College has offered concentrated energy conservation training (six seminars over six months-May through October 1979) for managers of building facilities; in cooperation with Governor's Office of Energy Resources. Purposes included: prompt an inventory of energy using equipment and systems and energy use patterns; identify energy management techniques; provide update on practical applications of technological advancements; share information on application procedures for government grants.	R. Jan LeCroy Chancellor Cathy Oppel	4/79 Announce- ment

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Eastfield College Dallas County Community College District 3737 Motley Drive Mesquite, TX 75150 214/746-3272	Conservation	• Home Energy Analysis Training Program, offered cooperatively with U. of Texas, Austin, Center for Energy Studies; non-credit, 6-week course; home energy analysis program for building and insulation contractors, real estate appraisers, municipal planners, air conditioning persons, architects and engineers, utility company representatives, secondary school physics or general science instructors, and Texas Energy Extension Service and Texas Agricultural Service personnel.	Al Karner, Air Conditioning Dept.	• 1/80, EEP

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Galveston College Galveston, TX 77550 713/763-6551	Solar Humanities	• College offers solar courses. • Participant in Energy and The Way We Live Forums.	Melvin M. Plexico President Paul Teck	• 1/79 ERTA TERC • EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Grayson City Junior College Denison, TX 75020 214/465-6030	Solar	• Energy Resources, 3-credit course offered through the Engineering/ Science department, with focus on alternate energy sources, heat and energy transfer, and introduction to solar energy.	John H. Roberts	• NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lee College Box 818 Baytown, TX 77520 713/427-5611	Environ- mental Education Petroleum Humanities	● Environmental Biology course includes units on conventional and alternate energy sources. ● College offers non-credit courses/workshops/seminars in Off-Shore Technology and Pipe Line Technology. ● Participant in Energy and The Way We Live Forums.	Robert Wright Berne Lehmberg Jack Collum Glen Walker	● 9/80 Office Survey ● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
McLennan Community College Waco, TX 76708 817/756-6551	Humanities Management/ Conservation	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers variety of industrial energy utilization workshops in cooperation with The City of Waco and The Texas Industrial Commission, including: - Starting and Sustaining an Energy Management Program - Waste Heat Recovery - Energy Management for Small Manufacturers - Employee Motivation and Participation in Energy Management Programs - Energy Conservation in Air Conditioning and Lighting - Energy Conservation in Electrical Demand Control.	Wilbur A. Ball, President Robert K. Willis, ext. 211	● EWLFF material ● Verified 4/14/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Midland College 3600 Garfield Midland, TX 79701 915/684-7851	Solar	• Solar Heating Systems, 4-credit course offered through the Air Conditioning and Refrigeration Technology department, with focus on conservation, passive solar systems, plumbing techniques, solar domestic hot water, and solar systems installation/maintenance.	Charles Wakefield, Ext. 132	• NSEED'80
	Petroleum	• College offers degree program in Petroleum Technology.	Al G. Langford, President	• EPCG

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Navarro College P.O. Box 1170 Corsicana, TX 75110 214/874-6501	Solar	● One-year certificate program, Solar Installation and Maintenance, 37 hours.		● NSEED '80 ● Project brochure
	Conservation	● 11-module curriculum designed to fit into standard existing vocational programs; with funding support from State Education Office.		
	Solar	● AAS degree program, Solar Energy Technician, designed to prepare technicians to work on domestic solar heating and cooling systems. ● College is Project Center with four cooperating institutions (Brevard College in Fla; Cerro Coso Community College in CA; Malaspina College in British Columbia; and North Lake College in TX) received funding from NSF to design, develop, implement, test, evaluate and disseminate an associate degree curriculum to train solar energy technicians.		● 1/79 Hamilton Report
	Alcohol	● College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.		● USDOE Announcement
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.		● EWLF material
	Facilities Conservation	● College efforts have included: contracted with maintenance company to do a complete campus conservation overhaul that included demolition of two buildings; developed geothermal well that supplies a local hospital		● AED ● Verified 4/8/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Navarro College Corsicana, TX 75110		and the college with hot water and partial space heating; rescheduled students and staff for 40 hour/4 day arrangement; and constructed 3 banks of 24 solar collectors to provide hot water for one large campus dormitory.		
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
North Lake College 2000 Walnut Hill Lane Irving, TX 75062 214/659-5229	Solar	• Solar Energy Technician, AA degree program offered through the Science, Math, and Technology departments, with focus on Solar Technology--instrumentation, controls, design, and maintenance. Courses include: - Collectors and Storage, 4-credits - Energy Science I and II, 4-credits each - Future Technology, 3-credits - Introduction to Solar, 2-credits - Materials, Material Handling, 3-credits - Operational Diagnosis, 3-credits - Sizing Design and Retrofit, 5-credits - Solar Codes and Consumerism, 2-credits - Solar Practicum, 5-credits - Technical Survey of Energy Sources, 3-credits Curriculum is part of a national demonstration (Navarro College, TX, is the lead institution) funded in part by the National Science Foundation. Project will result in a complete curriculum package, including instructional materials, technical and support courses, staffing requirements, bibliographies, laboratory materials, institution requirements, and instructional costs. Other demonstration colleges are: Brevard Community College, FL; Cerro Coso Community College, CA; and Malaspina College, British Columbia, Canada.	Jim Knowles, 214/255-5325	• NSEED '80 • EEP, 1/80 • 2/80 Response Letter • Navarro Brochure

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Odessa College 201 W. University Odessa, TX 79762 915/337-5381	Facilities Conservation	College efforts include: compliance with DOE regulations, providing no heating above 65°F and no cooling below 78°F; all cooling and heating equipment is being shut down during times buildings are unoccupied, partial cooling and heating provided in partially occupied buildings; all employees are encouraged to conserve fuel through reminder memos, posters, personal exhortation, etc.; during summer months, entire college operates on a 4-day work week; energy consumption is considered in class scheduling, enabling some buildings or zones to be closed down; and one older building is being completely refurbished to save energy by closing off and insulating areas, ceilings are suspended and covered with six inches of insulation, light fixtures are relocated.	Dr. Jerry Jones, Business Manager Mr. Kenneth Hurst, Division Chairman Occupational and Technical Division Mr. Don Huff, Division Chairman, Science and Health Occupations Division	1/80 Response Letter
	Solar	Solar Power, 6-credit course offered through the Refrigeration and Air Conditioning department, with focus on solar components, energy storage systems, sheet metal techniques, solar heating, systems design, and solar systems installation/maintenance.	Norman Witcher	NSEED'80
	Humanities	Participant in Energy and The Way We Live Forums.	David Patemo	EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Paris Junior College 2400 Clarksville Paris, TX 75460 214/785-7661	Humanities	● Participant in Energy and The Way We Live Forums.	Dwight Chaney	● EWLF material
	Solar	● A pilot solar heating system was installed on campus and an instructional program in Solar Energy Technology initiated in the Fall 1979 semester through a grant from the Texas Education Agency. The program consists of two courses: - Solar Technology and Solar Mechanics and is an option to the Air Conditioning program	Bobby R. Walters V.P. for Instruction	● 8/80 Seminar Survey
	Alternative	● College offers a general survey course in Alternate Energy for the Construction Technology program.		
	Conservation	● The college is pilot testing an Energy Conservation Curriculum for vocational/technical students developed by Navarro College. These course modules will be integrated into existing vocational/technical curriculums at the college and at area secondary schools. ● The Continuing Education Division has offered programming dealing with conservation, types of energy available, and energy in relation to the oil and gas industry. This was an energy awareness program developed for the general public as well as public school students.		
	Alcohol/ Solar	● College is studying the feasibility/appropriateness of alcohol and active solar as alternative energy sources for northeast Texas and other demographically similar areas.	Harley Davis	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Ranger Junior College Ranger, TX 76470 817/647-3234	Solar	● College offers Solar Study focus in AA degree Air Conditioning and Refrigeration program; special courses include: -Fundamentals of Solar Heating and Cooling, 3-credit course, with emphasis on solar components, distributed solar power systems, materials, marketing/economic analysis, systems design, and systems testing/evaluation; -Solar Thermal Energy Systems, 3-credit course, with emphasis on centralized solar power systems, energy storage systems, heat and energy transfer, systems installation/maintenance, and plumbing techniques.	Alton Stiles	● NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
San Jacinto College Pasadena, TX 77505 713/476-1501	Solar/ Alternate	● Introduction to Solar and Alternate Energy Systems, 5-credit course offered through the Air Conditioning Mechanic degree and certificate programs, with focus on introduction to solar energy, solar space and hot water systems, and installation/maintenance. ● Solar Energy and Weatherization for The Homeowner, non-credit course offered through the Continuing Education department, South Campus.	Randy Cox, Dean Evening Division Everett P. Schmidt, Academic Dean, North Campus	● 1/80 Response Letter
	Humanities	● A solar energy demonstration device has been installed on campus for public viewing. ● Participant in Energy and The Way We Live Forums.	Marlin Cherry	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Tarrant County Junior College District 1400 The Electric Service Building Fort Worth, TX 76102 817/336-7851	Conservation	• Home Energy Analysis Training, Continuing Education course for utility company employees. • Developing an energy problems course which will include requirements for energy conservation and alternatives for energy savings. • Short courses for campus personnel relative to energy conservation methods and procedures.	Jimmie C. Styles, Vice Chancellor Research and Development	• 6/11/80 Letter
	Facilities Conservation	• Comprehensive energy management plan conceived in 1972 and implemented in 1973; from 1972 to 1976, the district realized 50% plus savings as result of plan and received recognition from the Governor's Energy Office and the Federal Energy Administration. Major components fo the plan include: - Temperature Adjustment: room thermostats and related HVAC equipment control devices were calibrated and adjusted; heating water supply temperature lowered to 140 degrees; chilled water supply temperature raised to 46 degrees; condenser water supply temperature lowered to 83 degrees; room space temperatures to maximum of 72 degrees in heating season and minimum of 76 degrees in cooling season. - Heat Transfer Efficiency: heat transfer tubes in refrigeration unit condensers, chillers, and boilers thoroughly brush cleaned and schedule of cleaning established; finned surfaces of cooling and	Joe B. Rushing Chancellor	• 6/24/80 Letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Tarrant County Junior College District Fort Worth, TX 76102 <u>CONTINUED</u>	Humanities	heating coils in F & C units cleaned with coil solvent solution; increased quality controls of water treatment for chilled water, heating water, condenser water and boiler make-up water systems; some air distribution systems were rebalanced; and outside air to F & C units were reduced. - Operational Changes: heating systems not operated if outside ambient dry bulb temperature was 50 degrees or higher; cooling system equipment not operated if outside dry bulb temperature was 60 degrees or lower; central heating and cooling system equipment not operated simultaneously; two electric driven central plant chilling units not operated simultaneously; during heating season, only one of two central heating boilers was fired at a given time; and all comfort cooling (heating) central/plant equipment was off except when the campus was occupied. - Slide presentation on plan activities produced by college. • Participant in Energy and The Way We Live Forums.	Annie Dobbins 817/338-4711	• EWLF material • Verified 4/6/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Temple Junior College 2600 South First Street Temple, TX 76501 817/773-9961	Facilities Conservation	● College strategies include: - adopted a four-day week summer session; - reduction of lighting levels in selected areas - installed locking covers on thermostats - changed lighting from incandescent to fluorescent in two buildings - scheduled summer classes to avoid turning on some air conditioning equipment - installed timers on all heating and air conditioning systems - installed solar screens on west windows of two buildings - installed water flow restrictors in showers in gymnasium. ● Designed a building (10/78) to be energy efficient. ● Involved in energy grants program. Three buildings have received ECM grants, bids being received now. One of these buildings will have a solar system for heating water for indoor pool. ECM grant applications submitted for five more buildings. Energy conserving ballasts being used in any new construction and remodeling projects; watt-saver lamps used where possible.	Percy A. Francis, Business Manager	● 1/80 Response Letter ● Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Texas State Technical Institute P.O. Box 11035 Amarillo, TX 79111 806/335-2316	Conservation	• College offers credit conservation courses, including: - Alternate Architecture; topics include: underground housing, abode construction, domes, solar architecture, and nomadic architecture. - Energy Conservation; topics include energy conservation in construction, collecting/storage/distribution of solar energy. - Four courses in Architectural Design include several units each on passive solar design, and design for climate control. • Adult Continuing Education course, Introduction to Architectural Design, covers solar heating and energy conservation, earth sheltered housing and adobe construction.	Gertrude Thompson, Curriculum Coord. ext. 270	• 2/80 Response Letter
	Solar	• Solar and Wind Energy, Survey, 4-credit course offered through the Drafting and Design Technology department. • Solar Systems, 2-credit course offered through the Construction Technology department, with focus on solar components, energy storage systems, introduction to solar energy, passive solar systems, solar domestic hot water, and solar heating	Stephen P. Carroll, ext. 244 Joe W. Latham, ext. 266	• NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Texas State Technical Institute Harlingen Campus Harlingen, TX 78550 512/425-4922	Nuclear Solar	• College offers Nuclear Technology-Radiation Protection Program, AAS Degree. • Solar Receivers, 2-credit hour course offered through the Air Conditioning Refrigeration Technology program, with focus on energy storage systems, plumbing techniques, solar components, solar domestic hot water, and solar heating.	Harold Vogel	• 1/79 ERTA, TERC • NSEED'80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Texas State Tech. Institute Sweetwater Campus Sweetwater, TX 79556 915/235-8441	Solar	• Air Conditioning, Ventilation, and Refrigeration with Solar Option and Solar Technology certificate, offered through the Air Conditioning, Ventilation, and Refrigeration department; 5 solar specialization courses; solar systems; energy conservation and applications; radiator and collector; land and heat storage; contract job.	John Griffith, Program Chairman, ext. 55	• Verified 4/3/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Texas State Technical Institute Waco Campus Waco, TX 76705 817/799-3611	Nuclear Solar	● College offers Nuclear Technology AAS degree program. ● Solar Energy Technology, AAS degree program offered through the Solar Energy Technology department, with focus on mechanical/electrical contracting-solar specialization, general contracting-specialization in solar design/installation, HVAC-solar specialization, solar system installation-residential/commercial, and solar technology-instrumentation controls/design/maintenance. Specialty courses include: - Air Distribution, 4-credit - Commercial Load Calculation, 4-credit - Cooling Devices, 3-credit - Domestic Hot Water Systems, 3-credit - Energy Conservation and Architectural Considerations, 3-credit - Heat Storage, 3-credit - Installation, Maintenance, and Troubleshooting, 5-credit - Introduction to Solar Energy Technology, 1-credit - Residential Load Calculations, 3-credit - Solar Calculations, 4-credit - Solar Controls, 3-credit - Solar Economics, 4-credit - Solar Radiation and Collectors, 4-credit - Solar Radiation and Collectors, 4-credit (advanced course) - System Configurations, 3-credit	Jerry Pierpont, ext. 368	● 1/79 ERTA, TERC ● NSEED '80

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Texas State Technical Institute Waco, TX 76705 <u>CONTINUED</u>	Conservation	- System Cost Estimating, 4-credit - System Design, 5-credit • College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.	Dr. Robert Krienke Campus Manager, TSTI-WACO 817/799-3611	• CORD material
	Environ- mental Education	• College offers certificate and degree programs in Drinking Water/Wastewater Treatment Technology.		• EPCG
1472			1473	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Tyler Junior College East 5th Street Tyler, TX 75701 214/597-4281	Solar	• Air Conditioning and Refrigeration degree program offers curriculum with solar study, with focus on solar system installation-residential. Specialty courses include: - Introduction to Solar Systems, 3-credit - Solar System Sizing and Installation, 4-credit	C.T. Robinson 214/593-2872	• NSEED'80
	Petroleum	• College offers degree program in Petroleum Technology.	Harry E. Jenkins President	• EPCG

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Vernon Regional Community College Vernon, TX 76384 817/552-6291	Humanities	● Participant in Energy and The Way We Live Forums.	Jim M. Williams, President Art Allen, Coordinator	● EWLF material
	Audit	● Participant in "Energy Audit Program" sponsored by Texas Energy and Natural Resources Advisory Council (1981).		● Verified 4/6/81
	Facilities Conservation	● Involved in 4-day summer schedule to conserve energy over long weekend by not utilizing air-conditioners.		
1476				1477



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<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
College of Eastern Utah 451 E. 4 North Price, UT 84501 801/637-2120	Humanities Facilities Conservation Coal	● Participant in Energy and The Way We Live Forums. ● College has adopted facilities conservation strategies designed to raise student and faculty awareness of energy conservation requirements and procedures. ● AA degree program in Coal Mine Technology. ● College, with area coal operators, Job Service, and local CETA, in 1975 instituted a Pre-Mine Training Course to prepare economically disadvantaged people for entry-level jobs in mining. ● Beginning in 1974, with the guidance of the Utah State Industrial Commission, college has been training coal miners; special funding from the Mine Safety and Health Administration; 3,000 individuals trained annually.	Len Miller Gary S. Wixom, Dean Division of Applied Science	● EWLF material ● 2/3/80 Letter ● PSIP Clearing-house Fact Sheet ○ NCRD, PE

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Dixie College Saint George, UT 84770 801/673-4811	Solar	• Solar/Alternate Energy certificate program offered through the Business and Trades department, with special courses, including: - Introduction to Solar Energy, 4-credit course with focus on heat and energy transfer, energy storage systems, marketing/economic analysis, materials, passive solar systems, solar home construction, and solar systems design. - Solar Energy-Home Use Applications, Three 3-credit courses with focus on alternative energy sources, conservation, plumbing techniques, solar components, installation/maintenance, systems testing/evaluation, and solar heating and cooling. - Intermediate Solar/Alternate Energy, 4-credit course with focus on solar components, including collectors, storage units, heat exchangers, related hardware, controls, and circulating pumps. - Advanced Solar/Alternate Energy, 4-credit course with focus on design, construction, maintenance, evaluation, and efficiency calculations.	Don C. Tait	• NSEED'80
	Faculty Development	• College was grantee under the 1970 USDOE Faculty Development Education Program; project title was Summer Workshop on Energy for Secondary Teachers; 2-week program focused on social, cultural, environmental, and economic energy issues; 40 teachers attended.	L. Grant Hinchcliff, Physics Department	• USDOE Announcement • Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Utah Technical College at Provo Provo, UT 84601 801/224-6161	Facilities Conservation Conservation Management	● College strategies include: using a heat pump system that draws on two wells that are 650 feet below the surface and investigating the use of solar energy for heating and cooling systems. ● Working with CORD (Waco, Texas) to field test energy conservation and use technician curriculum materials.	William W. Sorensen President	● 2/1/80 In-house Memo

VERMONT



Red Clover

1489

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Utah Technical College at Salt Lake Salt Lake City, UT 84107 801/969-3411	Energy General Humanities Facilities Conservation	● College offers courses in conservation, energy awareness and solar energy. ● Participant in Energy and The Way We Live Forums. ● College's energy committee suggestions resulted in energy savings through: consolidating schedules, analyzing utility expenses, and repairing equipment as part of a comprehensive energy plan.	Dale S. Cowgill, President Ann Erickson	● 1/79 ERTA, TERC ● EWLF material ● AED

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VIRGINIA



American Dogwood

1492

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Central Virginia Community College Lynchburg, VA 24502 804/239-0321	Conservation Faculty Development	● Series of non-credit seminars on energy conservation conducted. ● College is grantee in 1980 USDOE Faculty Development Program; Energy Conservation Summer Workshops, 15 days, 30 teacher-participants.	Ralph W. Brown, Jr. Department of Research & Planning	● USDOE Announcement ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Danville Community College Bonner Avenue Danville, VA 24541 804/797-3553	Energy General	Offers a short seminar on the Energy Crisis and The Consumer as special service to area consumers.	Donald L. Campbell, ext. 233	2/80 Response Letter
	Weatherization	In cooperation with the Virginia Energy Division, offers Home Energy Cost-cutting Clinics to residents; 2½ hour clinics with focus on weatherization.	Donald L. Campbell, ext. 233	
	Solar	- Offers a short survey course, Solar Energy; to discuss feasibility of solar heating, cooling, domestic hot water systems, etc. - Sponsors Solar Day...Solar demonstrations are conducted at the college with equipment constructed by faculty and students.	Donald L. Campbell, ext. 233 Mike Solomon, ext. 272	
	Alternative	Alternate Energy Sources, 3-credit course offered through the Physics department, with focus on the study of solar, wind, water, wood, and biomass energy.	Neal Howard, ext. 262	- EWLF material - Verified 3/30/81
	Wood	Offers a short course, Wood Stove Design and Construction.	Donald L. Campbell, ext. 233	
	Wind	A small windmill has been constructed on the campus.	Mike Solomon, ext. 272	
	Conservation	Offers a one-quarter (2-credit) course Conservation Topics, designed to increase understanding of selected conservation topics.		
	Humanities	Participant in Energy and The Way We Live Forums.	Donald L. Campbell, ext. 233	

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
J. Sargeant Reynolds Community College Richmond, VA 23241 304/264-3200	Humanities Environ- mental Education	• Participant in Energy and The Way We Live Forums. • College offers certificate programs in Potable Water Technology and Drinking Water/Wastewater Treatment Technology, and a degree program in Environmental Engineering Technology.	N.C. Peterson	• EWLF material • LPCG

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
John Tyler Community College 13101 Jefferson Davis Highway Chester, VA 23831 804/748-6481	Energy General	College has presented 35 energy seminars both on and off campus involving approximately 1607 people, through the auspices of the State Office of Emergency and Energy Services.	Samuel Lee Hancock	2/80 Survey Response
	Solar	Introduction to Solar Energy, 3-credit course offered through the Engineering Technologies department, with focus on appropriate technology heat and energy transfer, solar components, solar heating and cooling, passive solar systems, and solar home construction.	William Wyatt	NSEED'80
	Conservation	Non-credit course on step by step plans for buying and restoring older homes. Financing, heating and mechanical features discussed in depth. Special emphasis throughout placed on energy conservation.	Samuel Lee Hancock	Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lord Fairfax Community College P.O. Box 47 Middletown, VA 22645 703/869-1120	Energy General	• Energy-related courses offered through the Agriculture and Natural Resources Technology Division as well as the Engineering, Industrial and Public Service Technology Division.		• 3/80 Response Letter
	Appropriate Technology	• Series of one credit, elective, self-sufficiency, survival courses for the Continuing Career Studies Natural Living option. Topics include: wood heat, solar energy, windmills, stills, hydrogenerators, small livestock production, vegetable preservation, etc.		
	Conservation	• AAS degree specialization in Appropriate Technology has been proposed as a component of a six-year plan submitted to the State Council of Higher Education.		
	Solar	• Currently evaluating the need of a 2-year AAS program entitled Energy Conservation Management. Focus will include heat loss calculations, audit, energy source availability, monitoring systems, and management; community need survey planned. ○ Buying Solar, 6-contact hour course offered through the Continuing Education department. ○ Principles of Passive Solar Architecture course offered through the Agricultural & Natural Resources Division.	Samuel Cravotta, Jr.	• NSEED'80 • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Mountain Empire Community College Drawer 700 Big Stone Gap, VA 24219 703/523-2400	Coal Humanities Energy General	● Mining Technology and Supervision program, AAS degree in mining technology (2 year) and certificate (1 year) in mining supervision. ● Participant in Energy and The Way We Live Forums. ● AAS and Certificate programs in Climate Control, Drafting, and Electronics include energy-related courses	Victor B. Ficker, President B.F. Wheless, Jr.	● 1/79 ERTA, TERC, ● EWLF material ● 2/11/80 Telephone Survey

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Virginia Community College Alexandria Campus 3001 North Beauregard Street Alexandria, VA 22041 703/323-4285	Facilities Conservation	College is working with local transportation company (METRO) to improve bus schedules serving the campus and increasing student ridership. Implemented a telephone registration system. Consolidated evening scheduling to allow students to attend 2 nights per week rather than 3 nights. Expanded weekend classes, and increased number of classes in community learning centers.	Kay Benton, 703/323-4222	2/80 Survey Response
	Appropriate Technology	Alternative Futures for Employment, Industry, and the Economy, one of a lecture series offered for no credit, with stress on future changes in social organization, attitudes, economics, and training.	Community Services Department 703/323-4240	1/80 College Brochure

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Virginia Community College Annandale Campus 8333 Little River Turnpike Annandale, VA 22003 703/323-3000	Solar	● Air Conditioning and Refrigeration with Solar Option offered through the Environmental and Natural Science department, with focus on mechanical/electrical contracting-solar specialization, solar technology-instrumentation/controls/design/maintenance, plumbing-solar specialization, and do-it-yourself home installation. Courses include: -Supervised Study - Solar Energy I, II, and III, 3-credit each -Building Mechanical Equipment, 3-credit.	Dr. Alan R. Clarke, Mr. Donald Solomon 703/670-2191, ext. 230,252	● NSEED'80 ● Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Virginia Community College Woodbridge Campus Woodbridge, VA 22191 703/494-1136	Environ- mental Education Solar	• College offers certificate program in Environmental Science/Health. • College offers courses in solar energy technology through the Air Conditioning Refrigeration department.	Lionel B. Sylvas, Provost	• EPCG • Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Patrick Henry Community College P.O. Drawer 5311 Martinsville, VA 24112 703/638-9777	Conservation Humanities Alternate	● Has used slides provided by VA Emergency and Energy Office to make a series of presentations on energy conservation. ● Participant in Energy and The Way We Live Forums. ● College offers seminar on wood stove installation, safety and use.	Steve Maradian, Continuing Education & Community Services	● 2/80 Survey Response ● EWLF material ● Verified 3/30/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Paul D. Camp Community College P.O. Box 737 Franklin, VA 23851 804/562-2171	Energy General	• Over last 3 years faculty members have conducted 10 energy seminars with materials sent from the State Department of Energy. • In 1980, cooperated with the Franklin Chamber of Commerce in presenting an Energy Workshop and Trade Show for 200 people. • Course - ENVR 156: Home Alternative Systems is conducted by the Drafting department.	Joy B. Collier, Coordinator of Grants and Institutional Research	• 2/80 Response Letter
	Faculty Development	• College is grantee under the 1980 USDOE Faculty Development Program; three-week summer workshop for 30 area secondary teachers in alternate energy sources; the construction of projects will be utilized in classrooms; carries six semester hours of credit.	Mike Forrest, Dept. of Electronics	• USDOE Announcement • Verified 4/4/81
	Alcohol	• Two faculty attended the Solar Energy Training workshop in Media, Pennsylvania, conducted for community college faculty. • Conducted a one-day workshop in conjunction with VPI extension on gasohol production.		

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Southwest Virginia Community College P.O. Box SCC Richlands, VA 24641 703/964-2555	Humanities Solar Mining Appropriate Technology	• Participant in Energy and The Way We Live Forums; offered for credit. • College offers solar energy courses. • College offers AAS degree in mining technology and certificate in machine maintenance. Complete program of coal production, preparation and analysis. • College has begun some practical research projects. Students and faculty together have completed a wind-powered generator rated at .5Kw and plan to build a 1.6Kw thermoelectric energy conversion unit.	Charles R. King, President James Gibson, ext. 329 Carl Painter, ext. 337	• FWLF material • 1/79 ERTA, TERC and Oak Ridge Coal Report • Verified 4/2/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Virginia Western Community College 3095 Colonial Avenue, S.W. Roanoke, VA 24015 703/982-7249	Solar	• Introduction to Solar Heating of Buildings, 3-credit course; survey class of the principles and considerations involved in the design and planning of solar-heated buildings; an overview of active and passive systems, their development, applications and operation. • Solar Energy System Design, 3-credit course; practical design of solar hydronic and air systems for space heating and domestic hot water heating. Primary emphasis on residential heating systems. Includes discussions on collector types, storage systems, system controls, solar cooling and integrated systems, and economic considerations.	Robert Arminio	• Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wytheville Community College Wytheville, VA 24382 793/228-5541	Humanities Environ- mental Education	• Participant in Energy and The Way We Live Forums. • College certificate and degree programs in Drinking Water/Wastewater Treatment Technology, and a degree program in Environmental Studies.	William F. Snyder President Earl K. Cherry Director of Continuing Education Gary Laing Division Chairman	• EWLF material • EPCG • Verified 4/2/81
1525			1526	

WASHINGTON



Coast Rhododendron

1527

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bellevue Community College Bellevue, WA 98007 206/641-2271	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● College has installed an automatic monitor and control system for the 112 heat pumps which service college buildings. Waste heat was reduced through sealing leaks in buildings, securing drop-in ceilings and adding return air ducts. Future plans include: supplementing gymnasium's large heat pumps with solar power, heating its greenhouses with solar power, installing a source-water loop to recover and recycle energy exhausted by several different sources on campus. The source-water system also would eliminate the five-minute-an-hour period during which the air-to-air heat pumps are defrosting.	Boyd Bolvin Thomas E. O'Connell President	● EWLF material ● News-release

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Clark College Vancouver, WA 98663 206/694-6521	Humanities Facilities Conservation	● Participant in Energy and The Way We Live Forums. ● College uses solar energy to heat and light toilet facilities, especially designed for the handicapped.	Norman Roberts Patricia L. Wirth Dean 699-0123	● EWLF material ● AED

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Columbia Basin College Pasco, WA 99301 509/547-0511	Nuclear	College offers Nuclear Technology AA degree program.	Fred L. Esvelt, President	1/79 ERTA, TERC

C O L L E G E	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Edmonds Community College 20000 68th Ave. W. Lynnwood, WA 98036 206/771-1500	Management	● Associate of Technical Arts Degree, Energy Management, with Technical courses (50 credits required) including: - Introduction to Energy-5 credits - Materials and Design in Conservation-3 credits - Solar Energy Concepts-3 credits - Renewable Energy Systems-3 credits - Fundamentals of Heat Transfer-5 credits - Energy Electronics-4 credits - Energy Auditing/Calculations-5 credits - Commercial Buildings-5 credits - Energy Control Systems-3 credits - Advanced Solar Energy Concepts-3 credits - Energy Building Codes-3 credits - Special Projects/Selected Topics-1-15 credits - Energy Co-op Seminar-1-3 credits - Cooperative Education-1-15 credits Topics include consumption rates and causes, technical controls and devices, efficient construction techniques/materials, heat transfer and alternative HVAC systems, building codes, renewable resources and economic impact. ● Residential/Commercial Auditor Training, certificate program offered through the Trades and Industries department, with focus on energy use analysis, HVAC measurements, insulation, electric/hydraulic/mechanical control systems, and technical reports.	Elaine Weitz, Coordinator, Energy Management Program	● 4/80, 8/80 Survey Response

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Everett Community College 801 Wetmore Avenue Everett, WA 98201 206/259-7151	Humanities Alcohol Environ- mental Education	● Participant in Energy and The Way We Live. ● College is planning to develop and offer an AAS degree in Ethanol Technology Training by 1983; plans include the construction of a 300,000 gallon per year ethanol plant to be used to support the program financially and to serve as a laboratory for students. A feasibility study will be applied before final plans are made. Program would be offered as a <u>joint</u> program, and would include; Skagit Valley Community College (Mt. Vernon, WA). ● College offers a degree program in Environmental Studies.	Gary London, Sally van Niel Chad Lewis	● EWLF material ● 9/80 telephone discussion ● EPCG ● Verified 4/3/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Fort Steilacoom Community College 9401 Farwest Drive Tacoma, WA 98498 206/964-6500	Humanities Solar	● Participant in Energy and The Way We Live Forums; offered for credit. ● Energy and Man, 5-credit course offered through the Physical Science department, with focus on current and alternative energy sources, conservation, and introduction to solar energy. ● Environmental Science 5-credit course offered through the Physical Science department; part of course focuses on energy use.	Richard Harris Karen Harding 964-6674	● EWLf material ● NSEED'80 ● Verified 4/22/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Green River Community College 12401 S.E. 320th Street Auburn, WA 98002 206/833-9111	Solar	• College is planning a Solar Energy Technician AA degree program. • College has made a commitment to establish a permanent solar energy technican training program.	H.W. Taylor, Dean of Instruction	• 1/80 Response Letter • Verified 4/13/81

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Lower Columbia Community College Longview, WA 98632 206/577-2321	Management	Participant with four other community colleges in a consortium charged with research, development, and implementation of an Energy Management Training program; recently, the consortium with the State Energy Office developed and completed 18 energy audit training sessions for on-line operation and maintenance school personnel.	David B. Story, President	NCRD, PE
	Humanities	Participant in Energy and The Way We Live Forums.	Steve Kridelbaugh	EWLF material

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North Seattle Community College 9600 College Way North Seattle, WA 98103 206/634-4444	Management/ Solar	Energy Management & Solar Systems, 3-credit course offered in the Heating, Air-Conditioning & Refrigeration Technology program (AAS), with focus on techniques of planning and the presentation to sell a technical product to manufacturers, wholesalers, contractors, and the public.	Don Swenson Ivan C. Stepnich	Verified 4/6/81

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Olympia Technical Community College 2011 Mottman Road, S.W. Olympia, WA 98502 206/753-3000	Solar	● Solar Energy for Space Heating and Hot Water, 3-credit course offered through the Continuing Education department, with focus on heat and energy transfer, materials, plumbing techniques, solar heating and cooling and domestic hot water.	Martin Oatman 206/753-3005	● NSEED'80

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Peninsula Community College 1502 E. Lauridsen Boulevard Port Angeles, WA 98362 206/452-9277	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Residential Solar Heating Systems, 3-credit course offered through the Engineering Technology department.	Floyd F. Young George Van Deusen	● EWLF material ● NSEED'80
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Seattle Central Community College 1718 Broadway Seattle, WA 98122 206/587-4100	Facilities Conservation	● College strategies to reduce energy usage include: - A condensate recovery unit (economizer) was installed to utilize condensate for pre-heating the domestic hot water - The heating and ventilating or cooling system was shut down by maintenance personnel 60 to 90 minutes prior to school closure - Tamper boxes were installed on thermostats - During non-operating hours (weekends and/or holidays), all lights excluding night lights and stairway lights are shut off - The Trade and Industrial Division, which consists of approximately 90,946 square feet of building space and approximately 73,630 square feet of assignable space, is currently operating on a four-day instructional week.	Jeffery R. Watts Director, Campus Services 206/587-6930	● 3/80 Survey Response
	Humanities	● Participant in Energy and The Way We Live Forums.	Dan Peterson	● EWLF material
	Solar	● Introduction to Solar Heating, 3-credit course offered through the Trade and Industrial department, with focus on solar components, conservation, energy storage systems, greenhouse techniques, passive solar systems, solar home construction, and solar law/legislation.	Robert Schneider 587-6922	● NSEED'80

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Shoreline Community College Seattle, WA 98133 206/546-4101	Nuclear	● Nuclear Technology program, AA degree	Richard S. White, President	● 1/79 ERTA, TERC
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Howard Vogel	● EWLF material
	Environmental Ed.	● College offers degree in Environmental Technology.		● EPCG

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Skagit Valley College Mount Vernon, WA 98273 206/424-1031	Facilities Conservation	● College has contracted with local engineers to design solar heating system for gymnasium, and, with the aid of state architects and engineers, college is retrofitting heating system in a classroom building (solar application being considered for this building).	Walter Roberts, Admn., Dean for Special Projects 206/428-1219	● 3/3/80 office conver- sation
	Alcohol	● College is offering alcohol fuels workshops.		
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	George Delaney	● EWLF material
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Spokane Falls Community College W3410 Fort George Wright Drive Spokane, WA 99204 509/456-2976	Energy General	- College has offered Earth-Sheltered, Energy-Efficient Home Design and Construction classes; 2-quarter, sequential course-Fall and Winter Quarters 1979-80. Will be an annual offering. - The College is in the process of conducting a needs assessment survey to determine how many energy-related jobs are or will be available within a 150 mile radius of Spokane. The survey will be completed by June 30.	M. Ronald Johns, Division Supervisor, Math/Science	2/80 Survey Response - Verified 4/6/81
	Demonstration Information Center	SFCC is cooperating with a community action group to build a Demonstration Earth-Sheltered, Energy-Efficient Home and Information Center. The complex will consist of a model single-family residence, an energy resource center and a meeting space of approximately seventy-five seats for workshops, programs and meetings. The complex will be built on the SFCC campus and the college will operate it.	M. Ronald Johns	

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Tacoma Community College 5900 South 12th St Tacoma, WA 98465 206/756-5049	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.	Ronald E. Magden	EWLF material
	Consortium	Participant with four other community colleges in a consortium charged with research, development, and implementation of an Energy Management Training program; recently the consortium with the State Energy Office developed and completed 18 energy audit training sessions for on-line operation and maintenance school personnel.	Ivonna McCabe, Chairman, Math/ Science Division, Energy Program Manager	2/80 Response Letter
	Conservation	Continuing Education Department has developed courses on energy audit, insulation, and solar energy.		
	Energy Management	Energy Management Technician Program, AAS degree program using curriculum materials developed by TERC (TX) in a field test of the courses; curriculum is designed to train technicians who can assist with planning, adjusting, and monitoring existing and new systems of heating, ventilation, air conditioning, and lighting of new and existing structures; a broad, technical-based, interdisciplinary program.		
	Solar	Energy: Past, Present, and Future, 3-credit course offered through the Engineering department, with focus on conservation, heat and energy transfer, process heat, solar heating, and thermochemical conversion.	Russell E. Clark 206/756-5060	NSEED'80
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Yakima Valley College Yakima, WA 98902 509/575-2356	Humanities Consortium	● Participant in Energy and The Way We Live Forums; offered for credit. ● Participant with four other community colleges in a consortium charged with research, development, and implementation of an Energy Management Training program; recently, the consortium with the State Energy Office developed and completed 18 energy audit training sessions for on-line operation and maintenance school personnel.	Franklin R. Turner President Ted Keeler	● EWLF material
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Beckley College P.O. Box AC Beckley, WV 25801 304/253-7351	Coal	College offers coal mine technology training programs.	John W. Saunders, President	1979 Hamilton Study
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bluefield State College Bluefield, WV 24701 304/325-7102	Humanities	• Participant in Energy and The Way We Live Forums.	John M. White, ext. 311	• EWLF material
	Appropriate Technology/ Information Center	• College operates an information resource center with self-learning packets. Center provides technical assistance and workshops, including Coal Mine Surveying--April 30, 1981, Charleston; Coal Mine Surveying--Summer, 1981, Bluefield.	John M. White Frank Hart, ext. 229	• Verified 4/27/81
	Energy General	• Through Continuing Education department, college offers sequences of non-credit courses such as energy related areas of conservation, marketing, and appropriate technology.	Mark Rowh, ext. 221	
	Facilities Conservation	• College has conducted facilities audit with the bid of an architect. Results include: installed insulated windows in one building with plans for other buildings, reduced summer session to four days, and adjusted heating and cooling temperatures to meet federal guidelines.	Stuart R. Grimm, ext. 213	
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Fairmont Community College Fairmont, WV 26554 304/367-4191	Energy General	• College offers a variety of energy-related courses, as part of individual disciplines/curricula and as discrete courses. • Offers energy-related workshops for local industry employees in cooperation with management; topics focus on energy conservation. • Offers teacher-education workshops in energy for secondary teachers.	Paul Edwards, Dean	• Response letter
	Humanities	• Participant in Energy and The Way We Live Forums: offered for credit.		• EWLF material
	Coal	• College offers coal mine technology programs.		

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Parkersburg Community College Route 5, P.O. Box 167A Parkersburg, WV 26101 304/424-8000	Humanities Solar	● Participant in Energy and The Way We Live Forums; non-credit (CEUS). ● Air Conditioning and Refrigeration certificate program includes a solar energy focus, with 3-credit course, Solar Heat, stressing appropriate technology, conservation, heat and energy transfer, passive solar systems, solar cooling, and heating, and solar systems design. ● College offers certificate and degree programs in Environmental Engineering Technology.	Timothy Fidler L.G. Schmidt 304/424-8251	● EWLF material ● NSEED'80 ● FPCG ● Verified 4/6/81

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Potomac State College West Virginia University Keyser, WV 26726 304/788-3011	Humanities Solar	● Participant in Energy and The Way We Live Forums. ● Engineering Design II, 3-credit course offered through the Engineering department, with focus on alternate energy sources, appropriate technology, solar components, conservation, solar heating, solar systems design, and wind energy conversion systems.	Gordon Mon, ext. 74	● EWLF material ● NSEED'80

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Southern West Virginia Community College Logan, WV 25601 304/752-5900	Humanities Coal	● Participant in Energy and The Way We Live Forums; offered for credit. ● College offers degree program in Mining Technology.	Dr. Jerry Hardin, ext. 216 Ms. Peggy McClure, ext. 263	● EWLF material ● FPCG ● Verified 4/10/81

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Southern West Virginia Community College Williamson Campus Armory Drive Williamson, WV 25661	Coal	• College offers AAS coal mine technology training program.	William E. Barrett, Provost	• Oak Ridge Coal Report

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West Virginia Northern Community College Wheeling, WV 26003 304/233-5900	Humanities Coal Environmental Ed.	● Participant in Energy and The Way We Live Forums. ● College offers AAS degree program in Coal Mining Technology. ● College offers certificate and degree programs in Environmental Science/Health.	Daniel B. Crowder, President	● EWLF material ● 1/79 Hamilton Report ● EPCG



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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Blackhawk Technical Inst. Janesville, WI 53545 608/756-4121	Energy General	● College offers a variety of community courses, including: Consumer Awareness Weatherization and Caulking Home Weatherization Home Heat Loss Prevention Household Energy Energy Conservation in Your Home Furnace Maintenance/Energy Conservation Wood Burning Home Heat Supplements Solar Heating Solar Energy for Homes Engine Tune-up ● Courses offered for trades, business and industry include: Heating Controls Gas Burner Servicing Oil Burner Servicing Boiler Operation and Maintenance Ventilation Problems Engine Tune-up	Orvis L. Johnson, District Director Sherman D. Ansell Voc. Ed. Consultant Energy and Research State of Wisconsin Board of Voc., Tech., and Adult Education	● 6/24/80 letter with Wing-spread Conference Report on Energy Education 9/79

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District One Technical Inst. Eau Claire, WI 54701 715/836-3975	Energy General	● College offers a variety of community courses, including: Home Energy Maintenance Energy Saving Tips for Homeowners Household Energy Furnance Maintenance Wood Lot Management Solar Heating Engine Tune-up Save Energy-Save Dollars ● Courses for trades, business and industry include: Solar Heating Solar Applications for the Construction Industry Understanding Your Heating System Weatherization and Caulking Residential Energy Audit Energy Inspection Certification Energy Management Workshop Energy Workshop for Small Business Energy Management for Institutions, Government and Education	Sherman D. Ansell, State Board of Voc., Tech., and Adult Education	● 6/24/80 Letter with Wing-spread Conference Report on Energy Education 9/79
	Solar	● Alternative Energy Systems, 3-credit course offered through the Air Conditioning Technology department, with focus on alternative energy, conservation, heat and energy transfer, solar home construction, and solar heating and cooling. ● Solar Energy, 12-contact hour course offered through the Evening College, with focus on heat and energy transfer, energy storage systems, passive solar systems, and solar systems design.	Thomas A. Dougherty 715/836-2828	● NSEED '80

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District One Technical Inst. Eau Claire, WI 54701	Alcohol	● College is conducting experiments and demonstrations in alcohol fuels production.	Norbert K. Wurtzec	● 10/1/80 Convention Application
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Fox Valley Technical Inst. Appleton, WI 54913 414/735-5600	Energy General	• Variety of community courses, including: Winterization (in concert with CETA) Winter Insulation (in concert with CETA) Energy Conservation/Heating-Cooling/Insulation Solar Energy Auto for Consumers • Courses offered for trades, business and industry: Gas Burner Servicing Refrigeration Appliance Servicing Energy Management Boiler Workshop	William M. Sirek, Director Sherman D. Ansell, State of Wisconsin Board of Vocational, Technical and Adult Education	• 6/24/80 Letter with Wing-spread Conference on Energy Education 9/79

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Gateway Technical Institute Kenosha, WI 53141 414/656-6953	Energy General	● Courses offered for trades, business and industry include : Air Conditioning and Refrigeration Boiler Operation and Maintenance	Keith W. Stoehr District Director Sherman D. Ansell State of Wisconsin Board of Vocational Technical and Adult Education	● 6/24/80 Letter with Wing- spread Confer- ence Report on Energy Educa- tion 9/79

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Lakeshore Technical Institute Cleveland, WI 53015 414/693-8211	Humanities Energy General Nuclear	• Participant in Energy and The Way We Live Forums. • College offers a variety of community courses, including: Making Energy Conservation Work Future Impact - Energy/Population Energy Conservation Energy Conservation Through Electronic Devices Wood as an Energy Source Solar Heating/Solar Heating for the Home Owner • Courses offered for trades, business and industry include: Gas Burner Servicing Oil Burner Servicing Solar Energy for the Home Energy Management for Institutions, Government and Education • College offers Nuclear Power Technology program.	Glen M. Moran Frederick J. Nierode, District Director	• EWLF material • 1/79 ERTA, TERC

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Madison Area Technical College Madison, WI 53703 608/266-5050	General	● College offers a variety of community courses, including: Auto Emission Control Auto for Consumers ● Courses offered for trades, business and industry include: Gas Burner Servicing Oil Burner Servicing L.P. Gas Service Energy Management Workshop Energy, Management Boiler Workshop Save Energy, Save Dollars	Norman P. Mitby, District Director Sherman D. Ansell State of Wisconsin Board of Vocational, Technical & Adult Education	● 6/24/80 Letter with Wing- spread Confer- ence Report on Energy Education 9/79
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Marilyn Carien	● EWLF material

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Milwaukee Area Technical College Milwaukee Campus Milwaukee, WI 53203		Window Treatments An Energy Audit of Your Home Firewood and Wood Burners Residential Solar Heating Introduction to Alternative Energy Resources Do-It-Yourself Energy Savings • Courses offered for trades, business and industry include: Gas Burner Servicing Oil Burner Servicing Residential Energy Audit Energy Conservation-Building Energy Conservation Measures and Applications Energy Conservation-Industry	Technical and Adult Education	ence Report on Energy Education 9/79
<u>CONTINUED</u>				
	Humanities	• Participant in Energy and The Way We Live Forums; offered for credit. Former Vice President Mondale was key speaker at 3/6/80 forum.	Eldred K. Hansen	• EWLF material
	Environmental Education	• College offers degree programs in Drinking Water/Wastewater Treatment Technology and Environmental Science/Health.		• EPCG
	Solar	• College hosted League for Innovation in the Community College Solar Installation Workshop, 5-day college faculty training session; 4/6-10/81.		• Verified 4/28/81

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Nicolet College and Technical Institute P.O. Box 518 Ripeland, WI 54501 715/369-4410	General	• College offers a variety of community courses, including: Heat Energy Conservation Home Weatherization (with CAP) An Energy Audit of Your Home Wood Burning as an Energy Source Solar Energy Solar and Other Energy Sources Nuclear Power Passive Solar and Underground Housing • Course for trades, business and industry: Energy Inspection Certification • The Wisconsin Energy Project, video programs broadcast over state education television focusing on energy consumption and life styles in the state, available through the college.	Richard J. Brown, President Sherman D. Ansell • Board of Vocational, Technical & Adult Education John Horstkettler and Marilyn Neis, Instructors Robert I. Steger	• 6/24/80 Letter with Wing- spread Confer- ence Report on Energy Educa- tion, 9/79 • 2/18/80 Response Letter
	Humanities	• Participant in Energy and The Way We Live Forums.	Marilyn J. Neis	• EWLIF material

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North Central Technical Inst. Wausau, WI 54401 715/675-3331	General	● College offers a variety of community courses, including: Citizens Workshop on Energy Woodlot Management ● Courses offered for trades, business and industry include: Oil Burner Servicing L.P. Gas Service Energy Inspection Certification Energy Management Workshop (Custodial) Appliance Management Fundamentals	Dwight E. Davis District Director Sherman D. Ansell State Board of Vocational, Techni- cal and Adult Education	● 6/24/80 Letter with Wing-spread Conference Report on Energy Educa-tion, 9/79
	Solar	● Principles of Solar, 3-credit course offered through the Technical Education department, with focus on appropriate technology, conservation, heat and energy transfer, energy storage systems, marketing/economic analysis, solar home construction, solar systems design, testing/evaluation, and solar heating and cooling.	Ronald Beckman	● NSEED'80
	Conservation	● College is cooperating in field-test of Center for Occupational Research and Development, Inc. (CORD) materials, Energy Conservation and Use Technician.		● CORD material

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Northeast Wisconsin Tech. Institute Green Bay, WI 54303 414/497-3111	General	● College offers a variety of community courses, including: Energy Conservation Woodlot Management Firewood (Cutting and Types of Wood) Installing Wood Heaters Solar Heat Practical Solar Energy Energy Evaluation Workshop ● Courses offered for trades, business, and industry include: Oil Burner Conservation L.P. Gas Service Heat Seminar Solar Heating (General Concepts) Energy Conservation/Buildings Energy Management	Gerald D. Pindiville District Director Sherman D. Ansell State Board of Vocational, Tech., and Adult Education	● 6/24/80 Letter with Wing-spread Conference Report on Energy Education 9/79
	Humanities	● Participant in Energy and The Way We Live Forums.	Joseph Myrich 414/497-3060	● EWLF material ● Verified 4/3/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Waukesha County Technical Institute Pewaukee, WI 53072 414/691-3200	General	● College offers variety of community courses, including: Energy Conservation and Application Heating Plant Service-Residential Wood Burning as an Energy Source Solar Energy ● Courses offered for trades, business and industry include: Oil Burner Servicing Air Conditioning - Psychometrics Energy Management Boiler Workshop Boiler Operation and Maintenance	Richard T. Anderson District Director Sherman D. Ansell State Board of Vocational, Technical and Adult Education	● 6/24/80 Letter with Win- spread Confer- ence on Energy Education 9/79
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Barbara F. Foy 414/542-9660	● EWLF material

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Western Wisconsin Technical Institute La Crosse, WI 54601 608/785-9200	General	● Institute offers a variety of community courses, including: Home Weatherization Saving Energy in Your Home Woodlot Management Solar Energy for Homes Introduction to Alternative Energy Resources Engine Tune-up ● Courses offered for trades, business and industry include: Heat Pumps Gas and Oil Burner Service Solar Energy for the Home Solar Energy Concepts Weatherization and Caulking Insulation, Vapor Barriers, and Ventilation Energy Inspection Certification Energy Management Workshop Energy Management Boiler Workshop	Charles G. Richardson District Director Sherman D. Ansell State Board of Vocational, Tech., and Adult Education William G. Welch, Sr. Energy Education Coordinator 608/785-9178	● 6/24/80 Letter with Wing-spread Conference Report on Energy Education 9/79 ● NSEED'80
	Humanities	● Participant in Energy and The Way We Live Forums; offered for credit.	Harold P. Erickson	● EWLF material
	Facilities Conservation	● College circulates computer summaries of electric, gas, and oil use in individual buildings monthly to encourage students, faculty, and maintenance personnel to conserve energy.		● AED ● Verified 4/10/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Wisconsin Indianhead Technical Inst. Superior, WI 54880 715/394-6677	Humanities	• Participant in Energy and The Way We Live Forums.	Alfred Hope	• EWLF material • NSEED'80
	Solar	• Energy Alternatives, 3-credit course offered through the Trade and Industry department, with focus on alternate energy, appropriate technology, solar components, conservation, energy storage systems, heat and energy transfer, plumbing/sheet metal techniques-solar specialization, and solar systems testing/evaluation.		
	Alternative	• College offers two-year energy technology program, with focus on conservation & management through its alternate energy laboratory.		• AED
	Facilities Conservation	• College has organized van-pooling routes to reduce student driving.	Vasant Kumar	• AED • Verified 4/6/81



Indian Paintbrush

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Casper College 123 College Drive Casper, WY 82601 307/268-2110	Solar	Residential Energy Conservation, 1-credit course offered through the Construction Education department, with focus on principles of home conservation.	Paul Hartman, 307/268-2604	NSEED '80
	Mining	College offers Certificate and AAS degree program in Mining Technology; 13 specialty courses.	Norman Ball, Admin. Asst. to the Pres.	Telephone Interview 7/28/80
	Petroleum	College offers Certificate and AAS degree program in Petroleum Technology; 7 specialty courses.		
	Energy General	College provides space to the Wyoming Energy Extension Service to conduct workshops and classes for the public.	Paul Hartman, Construction Tech. 307/268-2604	
	Consortium	College participates in state-wide consortium coordinated by Laramie County Community College involving seven community colleges and the University of Wyoming. Purposes include: planning future vocational energy programs to meet emerging energy manpower demands, designing courses to aid private citizens control their energy use, preparing classes on general energy education, and integrating secondary energy education programs with those offered in postsecondary institutions.	Lloyd H. Loftin, President	7/80 News-release
	Environmental Ed.	College offers degree program in Drinking Water/Wastewater Treatment Technology.		- EPCG - Verified 4/7/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Eastern Wyoming College 3200 West C Torrington, WY 82240 307/532-7111	Alternate Consortium	• College is planning solar and wind energy programs. • College participates in a state-wide consortium coordinated by Laramie County Community College involving seven community colleges and the University of Wyoming. Purposes include: planning future vocational energy programs to meet emerging energy manpower demands, designing courses to aid private citizens control their energy use, preparing classes on general energy education, and integrating secondary energy education programs with those offered in postsecondary institutions.	Guido Smith, Dean	• 2/1/80 In-house Memo • Verified 4/13/81

<u>C O L L E G E</u>	<u>Program(s) Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/ Person</u>	<u>Reference(s)</u>
Laramie County Community College Cheyenne, WY 82001 307/634-5853	Solar/Wind	College has built a model energy efficient house, featuring an active and passive solar system and a 4,000 watt wind generator; system monitored by students.	William C. Edwards	10/79 NCRD Survey
	Faculty Development	College is grantee under the 1980 USDOE Faculty Development Education Program; A Faculty Summer Workshop--Relating Solar Theory to the Design of Building of Homes in Wyoming, designed for 25 community college and university faculty, with focus on the placement, design, and construction of conventional above ground and earth-sheltered homes in Wyoming, using both passive and solar arrangements.	Dick Krahenbahl	USDOE Announcement
	Solar	Energy and Man, 4-credit course offered through the Science department, with focus on alternate energy sources and conservation	William C. Edwards	NSEED'80
	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.	Bill Edwards	EWLF material
	Consortium	College is the center of a state-wide Postsecondary Energy Education Consortium consisting of all seven state community colleges and the University of Wyoming. Purposes include: planning future vocational energy programs to meet emerging energy manpower demands, designing courses to aid private citizens control their energy use, preparing classes on general energy education, and integrating secondary energy education programs with those offered in postsecondary institutions	Harlan L. Heclar, President William C. Edwards	7/80 News-release

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Laramie County Community Coll. <u>CONTINUED</u>	Environ- mental Education Solar	● College offers degree program in Environmental Science/Health. ● Passive Solar House Design. Non-credit community services course.	Dick Krahenbah?	● EPCG ● Verified 5/1/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northern Wyoming Community College Sheridan, WY 82801 307/674-6446	Solar/ coal	• College offers programs in solar and coal mining technology.	Gordon A. Ward, President	• 2/1/80 In-house Memo from R. Wilson
	Consortium	• College participates in a state-wide consortium coordinated by Laramie County Community College involving seven community colleges and the University of Wyoming. Purposes include: planning future vocational energy programs to meet emerging energy manpower demands, designing courses to aid private citizens control their energy use, preparing classes on general energy education, and integrating secondary energy education programs with those offered in postsecondary institutions.	Gordon A. Ward, President	• 7/80 News-release

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Northwest Community College Powell, WY 82435 307/754-6111	Humanities	Participant in Energy and The Way We Live Forums; offered for credit.	John Enger, 307/754-6457	- EWLF material - NSEED'80
	Solar	Energy From The Sun, 2-credit course offered through the Physics department, with focus on solar components, conservation, energy storage systems, greenhouse techniques, heat and energy transfer, materials, passive solar systems, solar home construction, and solar systems design.		
	Consortium	College participates in a state-wide consortium coordinated by Laramie County Community College involving seven community colleges and the University of Wyoming. Purposes include: planning future vocational energy programs to meet emerging energy manpower demands, designing courses to aid private citizens control their energy use, preparing classes on general energy education, and integrating secondary energy education programs with those offered in postsecondary institutions.	Sinclair Orendorff, President	7/80 News-release - Verified 5/5/81
	Conservation	Energy and the Future, 2-credit course on stresses supply/demand, construction, and alternatives.	John Enger	
	Alcohol	- Energy Conservation in the Home. - College is looking into the production of alcohol through grain and sugar beets.	Sharon Cornwell	2/1/80 In-house Memo from R.Wilson

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Sheridan College Sheridan, WY 82801 307/674-6446	Mining	● College offers AAS mine technology training program; includes mine engineering, welding, fluid power mechanics, electrical maintenance, diesel mechanics, and reclamation technology.	Kenneth R. Ohm	● Oak Ridge Coal Report
	Solar	● Solar Energy Technology, AAS degree program offered through the Engineering Technology department, with focus on solar system installation--residential and commercial/industrial, solar instrumentation/controls/design/maintenance, and do-it-yourself home installation. Specialty courses include: - Energy Storage - Installation and Service--Solar System - Introduction to Solar Heating and Cooling - Solar Collectors - Solar Energy Fundamentals - Solar Heating and Cooling Systems - Wind Systems		● NSEED'80 ● Verified 4/27/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Western Wyoming Community College Rock Springs, WY 82901 307/382-2121	Humanities	● Participant in Energy and the Way We Live Forums.	Bert S. Slafter, President Robert Chesley	● EWLF material
	Solar	● Solar Home Planning, 3-credit course offered through the Building Trades department, with focus on alternate energy, centralized solar power systems, distributed solar power systems, solar components, heat and energy transfer, solar heating, solar systems design, and solar systems installation/maintenance.	Marvin Bowles	● NSEED'80
	Consortium	● College participates in a state-wide consortium coordinated by Laramie County Community College involving seven community colleges and the University of Wyoming. Purposes include: planning future vocational energy programs to meet emerging energy manpower demands, designing courses to aid private citizens control their energy use, preparing classes on general energy education, and integrating secondary energy education programs with those offered in postsecondary institutions.	Bert S. Slafter, President	● 7/80 News-release

VIRGIN ISLANDS

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PUERTO RICO

GUAM

AMERICAN SAMOA

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
American Samoa Community College Pago Pago, American Samoa 96799 808/688-9156	Energy General	• Territorial Energy Office and the college are planning a cooperative venture to develop a curriculum on energy-related matters aimed at careers in energy technology. Primary will be a vocational program to "certify" students in Solar Construction and Installation. Secondary will be a broad degree program in Energy Technology.	Dr. Johnnie Cain, Program Manager	• 4/80 Response letter

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Guam Community College P.O. Box 23069 Main Postal Facility Guam, Mariana Islands 96921 671/734-4311	Alternate	College has proposed a curriculum that includes: Energy Overview (with stress on the nature of energy, demand, and policy), Solar Energy (with stress on applications, impacts of use, and local resources), Introduction to Small Wind Energy Conservation Systems (with stress on basic theory, site selection and evaluation, estimating wind plant capacity and energy requirements, construction and design of systems, and economics), Introduction to Passive Cooling (with stress on concepts, influence factors, methods and techniques, and design evaluation), How to Build an Alcohol Fuel Still (with stress on basics of ethanol production, safety-regulatory and permit requirements, financing, and design), and How to Build a Methane Digester (with stress on basics of anaerobic digestion, chemistry of anaerobic decay, design, plant operation, and economic analysis.	R.W. Williams, Dean School of Science and Technology, ext. 51	4/81 Letter received 5/4/81

<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Bayamon Regional College University of Puerto Rico P.O. Box 4296 Bayamon Gardens Station Bayamon, PR 00619 809/763-1600	Solar	• Solar Energy Technology and Laboratory, 4-credit course offered through the Physics/Chemistry department, with focus on appropriate technology, solar components, solar domestic hot water, and solar heating.	Alfred J. Crouch 809/786-8725	• NSEED '80

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Guyama Regional College Guayama, PR 00654 809/864-1360	Environ- mental Petroleum	o College offers credit courses through the Chemistry department that include study of energy sources and problems: - Environmental Chemistry - Petroleum Chemistry	Arthur L. Blackwood, Director Chemical Technology Program P.O. Box 1559	o Verified 5/11/81
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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
Inter American University of Puerto Rico San Juan, PR 00936 809/892-1095 1653	Faculty Development	College is grantee under the 1980 USDOE Faculty Development Education Program; An Institute in Energy Education for Elementary and Junior High School Teachers addressed general issues with 50 teachers; 12 Saturday sessions.	Gentile Estevez, Dept of Natural Sciences 809/892-1095 1654	DOE Announce- ment

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<u>C O L L E G E</u>	<u>Program(s)</u> <u>Focus</u>	<u>A C T I V I T Y</u>	<u>Contact Information/</u> <u>Person</u>	<u>Reference(s)</u>
College of Virgin Islands St. Thomas, VI 00801 809/774-1254	Energy General Alcohol	• Public Workshops on Energy • Energy Forum on Ed. T.V. • Energy Information Room • Seminars on Energy Conservation • Solar Tech. Transfer for Homeowners and Small Business • College is grantee in the 1980 USDOE Alcohol Fuels Training Grants Program; 3-5 day workshops have been offered for businessmen, farmers, educators, and others interested in alcohol fuel production, especially on a small scale.	Michael J. Canoy, Caribbean Research Institute	• 3/80 Survey Response • USDOE Announcement

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DEGREE PROGRAMS (*Asterisk indicates college offering single degree program in two or more energy areas.)

A. Environmental

1. Jefferson State Junior College, AL	Environmental Studies
2. Gadsden State Junior College, AL	Pesticides & Toxicology
3. Southern Union State Jr. College, AL	Environmental Studies
4. Cabrillo College, CA	AAS - Environmental Studies
5. College of Alameda, CA	AAS - Environmental Studies
6. College of Marin, CA	AAS - Environmental Studies
7. Cosumnes River College, CA	AAS - Pesticides & Toxicology
8. Fullerton College, CA	AAS - Environmental Health/Science
9. Imperial Valley College, CA	AAS - Potable Water
10. Los Angeles Mission College, CA	Environmental Studies
11. Los Angeles Pierce College, CA	Environmental Studies
12. Los Angeles Trade-Tech. College, CA	Environmental Studies
13. Los Angeles Trade-Tech. College, CA	Drinking Water/Wastewater Treatment
14. Merritt College, CA	AAS - Environmental Science/Health
15. Modesto Junior College, CA	AAS - Drinking Water/Wastewater Technology
16. Palomar College, CA	Potable Water Technology
17. Reedley College, CA	Pesticides & Toxicology
18. Saddleback College, CA	Environmental Studies
19. San Diego City College, CA	Environmental Studies
20. Santa Ana College, CA	Drinking Water/Wastewater Treatment
21. Santa Ana College, CA	Environmental Studies
22. Colorado Mtn. College, East, CO	Environmental Protection Technology
23. Colorado Mtn. College, West, CO	Environmental Studies
24. Trinidad State Junior College, CO	Environmental Engineering Technology
25. Middlesex Community College, CT	Environmental Science
26. Northwestern Connecticut CC, CT	Environmental Studies
27. Norwalk State Technical College, CT	Environmental Engineering Technology
28. Brevard Community College, FL	Environmental Engineering Technology
29. Broward Community College, FL	Pesticides & Toxicology
30. Manatee Junior College, FL	Environmental Engineering Technology
31. Miami-Dade Community College, FL	Potable Water/Wastewater Treatment Technology

DEGREE PROGRAMS

A. Environmental (continued)

32. Miami-Dade Community College, FL	Environmental Studies
33. Palm Beach Junior College, FL	Drinking Water/Wastewater Technology
34. Pasco-Hernando Community College, FL	Pollution Control Technology
35. Santa Fe Community College, FL	Environmental Science/Health
36. Carl Sandburg College, IL	Wastewater Treatment Technology
37. College of DuPage, IL	Environmental Science/Health
38. Elgin Community College, IL	Pesticides & Toxicology
39. Lincoln Trail College, IL	Drinking Water/Wastewater Treatment Technology
40. Waubensee Community College, IL	Environmental Engineering Technology
41. Indiana Voc. Tech. Inst., Gary, IN	Drinking Water/Wastewater Treatment Technology
42. Indiana Voc. Tech. Inst., Gary, IN	Environmental Studies
43. Iowa Lakes Community College, IA	Environmental Engineering Technology
44. Kirkwood Community College, IA	Environmental Science/Health
45. Delgado Community College, LA	Pesticides & Toxicology
46. Delgado Community College, LA	Drinking Water/Wastewater Treatment Technology
47. Delgado Community College, LA	Environmental Science/Health
48. Anne Arundel Community College, MD	Environmental Studies
49. Charles County Community College, MD	Wastewater Treatment Technology
50. Community College of Baltimore, MD	Environmental Science/Health
*51. Garrett Community College, MD	Environmental & Renewable Resources
52. Prince George's Community College, MD	Environmental Studies
53. Becker Junior College, MA	Environmental Studies
54. Berkshire Community College, MA	Environmental Science/Health
55. Bristol Community College, MA	Drinking Water/Wastewater Treatment Technology
56. Dean Junior College, MA	Environmental Studies
57. Holyoke Community College, MA	Environmental Science/Health
58. North Shore Community College, MA	Wastewater Treatment Technology
59. North Shore Community College, MA	Pesticides & Toxicology
60. North Shore Community College, MA	Drinking Water/Wastewater Treatment Technology
61. Northern Essex Community College, MA	Environmental Technology

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DEGREE PROGRAMS

A. Environmental (continued)

62. Quinsigamond Community College, MA	Environmental Engineering Technology
63. Springfield Technical CC, MA	Environmental Engineering Technology
64. Bay De Noc Community College, MI	Drinking Water/Wastewater Treatment Technology
65. Macomb County Community College, MI	Drinking Water/Wastewater Treatment Technology
66. Monroe County Community College, MI	Environmental Engineering Technology
67. Austin Community College, MN	Environmental Studies
68. St. Cloud AVTI, MN	Drinking Water/Wastewater Treatment Technology
69. Vermilion Community College, MN	Drinking Water/Wastewater Treatment Technology
70. Hinds Junior College, MS	Environmental Science/Health
71. NW Mississippi Junior College, MS	Solar and Environmental Engineering
72. Southeast CC, Lincoln, NE	Environmental Studies
73. Western Nevada CC, NV	Environmental Studies
74. NH Voc. Tech. College, Berlin, NH	Drinking Water/Wastewater Treatment Technology
75. Bergen Community College, NJ	Environmental Engineering Technology
76. Burlington County College, NJ	Environmental Science/Health
77. County College of Morris, NJ	Drinking Water/Wastewater Treatment Technology
78. Middlesex County College, NJ	Environmental Science/Health
79. Salem Community College, NJ	Drinking Water/Wastewater Treatment Technology
80. Somerset County College, NJ	Environmental Studies
81. City Univ. of NY City CC, NY	Environmental Education Technology
82. Columbia-Greene CC, NY	Environmental Studies
83. CC of the Finger Lakes, NY	Environmental Studies
84. Dutchess Community College, NY	Environmental Studies
85. Erie Community College, NY	Drinking Water/Wastewater Treatment Technology
86. Hudson Valley Community College, NY	Environmental Science/Health
87. Hudson Valley Community College, NY	Environmental Studies
88. Mohawk Valley Community College, NY	Drinking Water/Wastewater Treatment Technology
89. Monroe Community College, NY	Environmental Control
90. Niagara County Community College, NY	Environmental Studies
91. P. Smith's C. of Arts & Science., NY	Environmental Studies

DEGREE PROGRAMS

A. Environmental (continued)

92. Sullivan County Community College, NY	Drinking Water/Wastewater Treatment Technology
93. SUNY AG. & Tech. Colleges, Alfred, NY	Pesticides & Toxicology
94. SUNY AG. & Tech. Colleges, Cobleskill, NY	Drinking Water/Wastewater Treatment Technology
95. SUNY AG. & Tech. Colleges, Delhi, NY	Drinking Water/Wastewater Treatment Technology
96. SUNY AG. & Tech. Colleges, Farmingdale, NY	Pesticides & Toxicology
97. SUNY AG. & Tech. Colleges, Morrisville, NY	Drinking Water/Wastewater Treatment Technology
98. Tompkins-Cortland Community College, NY	Drinking Water/Wastewater Treatment Technology
99. Ulster County Community College, NY	Wastewater Treatment Technology
100. Westchester Community College, NY	Environmental Science/Health
101. Westchester Community College, NY	Pesticides & Toxicology
102. Anson Technical Institute, NC	Pesticides & Toxicology
103. Cape Fear Technical Institute, NC	Environmental Studies
104. Cleveland Technical College, NC	Environmental Science
105. Martin Community College, NC	Environmental Science/Health
106. Pitt Community College, NC	Pesticides & Toxicology
107. Pitt Community College, NC	Environmental Engineering Technology
108. Robeson Technical College, NC	Pesticides & Toxicology
109. Southeastern Community College, NC	Wastewater Treatment Technology
110. Southwestern Community College, NC	Environmental Science/Health
111. Wilkes Community College, NC	Environmental Science/Health
112. Hocking Technical College, OH	Environmental Science/Health
113. Jefferson Technical College, OH	Environmental Engineering Technology
114. Muskingum Area Technical College, OH	Air Quality Technology
115. Muskingum Area Technical College, OH	Drinking Water/Wastewater Technology
116. Muskingum Area Technical College, OH	Environmental Engineering Technology
117. Claremore Junior College, OK	Environmental Science/Health
118. Oscar Rose Junior College, OK	Environmental Science Technology
119. Oscar Rose Junior College, OK	Wastewater Treatment Technology
120. Tulsa Junior College, OK	Environmental Science/Health
121. Chemeketa Community College, OR	Potable Water Technology

DEGREE PROGRAMS

A. Environmental (continued)

122.	Clackamas Community College, OR	Potable Water Technology
123.	Clackamas Community College, OR	Pesticides & Toxicology
124.	Clatsop Community College, OR	Pesticides & Toxicology
125.	Clatsop Community College, OR	Environmental Studies
126.	Lane Community College, OR	Drinking Water/Wastewater Treatment Technology
127.	Linn-Benton Community College, OR	Drinking Water/Wastewater Treatment Technology
128.	CC of Allegheny County, Allegheny, PA	Drinking Water/Wastewater Treatment Technology
129.	Harrisburg Area Community College, PA	Drinking Water/Wastewater Treatment Technology
130.	Northampton County Area CC, PA	Environmental Studies
131.	Westmoreland County CC, PA	Environmental Studies
132.	Community College of Rhode Island, RI	Environmental Engineering Technology
132.	Woonsocket Area Voc. Tech. Facility, RI	Environmental Studies
133.	Florence-Darlington Tech. College, SC	Drinking Water/Wastewater Treatment Technology
134.	Greenville Technical College, SC	Environmental Engineering Technology
135.	Sumter Area Technical College, SC	Pesticides & Toxicology
136.	Sumter Area Technical College, SC	Environmental Engineering Technology
137.	Volunteer State Community College, TN	Conservation and Environmental Technology
137.	TX State Tech. Inst., Waco, TX	Drinking Water/Wastewater Treatment Technology
138.	J. Sargeant Reynolds CC, VA	Environmental Engineering Technology
139.	Wytheville Community College, VA	Drinking Water/Wastewater Treatment Technology
140.	Wytheville Community College, VA	Environmental Studies
141.	Everett Community College, WA	Environmental Studies
142.	North Seattle Community College, WA	Environmental Studies
143.	Shoreline Community College, WA	Environmental Technology
144.	Parkersburg Community College, WV	Environmental Engineering Technology
141.	WV Northern Community College, WV	Environmental Science/Health
142.	Milwaukee Area Tech. College, WI	Drinking Water/Wastewater Treatment Technology
143.	Milwaukee Area Tech. College, WI	Environmental Science/Health
144.	Moraine Park Technical Institute, WI	Drinking Water/Wastewater Treatment Technology
145.	Casper College, WY	Drinking Water/Wastewater Treatment Technology
146.	Laramie County Community College, WY	Environmental Science/Health

DEGREE PROGRAMS

B. Nuclear

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| <ul style="list-style-type: none"> * 1. Kenai Peninsula Community College, AK 2. Hartford State Technical College, CT 3. Central Florida Community College, FL 4. Triton College, IL 5. Mississippi Gulf Coast Jr. College, MS 6. Wake Technical College, NC 7. Terra Technical College, OH 8. Terra Technical College, OH 9. CC of Beaver County, PA 10. Aiken Technical College, SC 11. Denmark Technical College, SC 12. Chattanooga State Tech. CC, TN 13. TX State Technical Inst., Harlingen, TX 14. TX State Technical Inst., Waco, TX 15. Columbia Basin College, WA 16. Shoreline Community College, WA 17. Lakeshore Technical Institute, WI | <ul style="list-style-type: none"> AAS - Applied Energy Technology (Alternate & Nuclear) Nuclear Technology Nuclear Technology Nuclear Medicine Radiological Technology Nuclear Radiation Control Technology Nuclear Engineering Technology Nuclear Power Nuclear Technology Nuclear Quality Assurance Technology Nuclear Engineering Technology Nuclear Engineering Technology Nuclear Technology Nuclear Technology-Radiation Protection Nuclear Technology Nuclear Technology Nuclear Technology Nuclear Power Technology |
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C. Alternatives

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| <ul style="list-style-type: none"> *1. Kenai Peninsula CC, AK *2. Cosumnes River College, CA 3. Vista College, CA 4. Santa Ana College, Ca *5. Garrett Community College, MD 6. Charles Stewart Mott CC, MI 7. LeHigh County Community College, PA | <ul style="list-style-type: none"> AAS - Applied Energy Technology (Alternatives & Nuclear) AAS - Solar & Alternative Energy System Energy Technology Energy Technology Environmental & Renewable Resources Alternate Energy Technology Alternate Energy Technology |
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DEGREE PROGRAMS

D. Coal

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| 1. Kenai Peninsula Community College, AK | AAS - Coal Mining Technology |
| 2. Colorado Mountain College, West, CO | Mining Technology |
| 3. Trinidad State Junior College, CO | Coal Mining Technology |
| 4. Rend Lake College, IL | Coal Mining Technology |
| 5. Southeastern Illinois College, IL | Coal Mining Technology |
| 6. Indiana Voc. Tech. C., Sellersburg, IN | Surface Mining Management Technology |
| 7. Wabash Valley Region, IN | Coal Mining Technology |
| 8. Lees Junior College, KY | Coal Mining Technology |
| 9. Southeast Community College, KY | Coal Mining Technology |
| 10. Eastern Maine Voc. Tech. Inst., ME | Coal Mining Technology |
| 11. Allegany Community College, MD | Coal Mining Technology |
| 12. Admiral Peary Area Voc-Tech. School, PA | Coal Mining Technology |
| 13. Roane State Community College, TN | Coal Mining Technology |
| 14. College of Eastern Utah, UT | Coal Mining Technology |
| 15. Mountain Empire Community College, VA | Mining Technology & Supervision |
| 16. Southwest Virginia CC, WV | Coal Mining Technology |
| 17. Southwest Virginia CC, Logan, WV | Coal Mining Technology |
| 18. Casper College, WY | Mining Technology |
| 19. Southwest VA CC, Williamson, WV | Coal Mining Technology |
| 20. West Virginia Northern Community College, WV | Coal Mining Technology |
| 21. Northern Wyoming Community College, WY | Coal Mining Technology |

E. Petroleum

- | | |
|--|--|
| 1. Kenai Peninsula Community College, AK | Petroleum Technology |
| 2. Tanana Valley Community College, AK | Petroleum Technology |
| 3. Colorado Northwestern CC, CO | Geological Drilling Technician & Production Technician |
| 4. Lincoln Trail College, IL | Petroleum Technology |

DEGREE PROGRAMS

E. Petroleum (continued)

5. Delgado Community College, LA	Petroleum Engineering Technology
6. Northwestern Michigan College, MI	Petroleum Technology
7. Northwestern Michigan College, MI	Petroleum Engineering Technology
8. Schoolcraft College, MI	Petroleum Technology
9. Univ. of North Dakota-Williston, ND	Petroleum Technology
10. Muskingum Area Technical College, OH	Petroleum Engineering Technology
11. Midland College, TX	Petroleum Technology
12. Tyler Junior College, TX	Petroleum Technology
*13. Casper College, WY	Petroleum Technology

F. Solar

1. Yavapai College, AZ	Solar Energy Technology
2. Mississippi County CC, AR	Solar Energy Technology
3. Cabrillo College, CO	Solar Energy Technology
4. Cerro Coso Community College, CA	Solar Energy Technology
5. Chaffey College, CA	Solar Technology
6. Cosumnes River College, CA	Solar & Alternative Energy Systems
7. Los Angeles Harbor College, CA	Solar Engineering Technology
8. San Diego Evening College, CA	ACHR and Solar Technology
9. San Jose City College, CA	Solar Technology
10. CC of Denver, Red Rocks, CO	Solar Energy-Installation & Maintenance
11. CC of Denver, Red Rocks, CO	Passive Solar Energy Drafting & Design
12. Brevard Community College, FL	Solar Energy Technology
13. Pensacola Junior College, FL	Solar Technology Training
14. Illinois Eastern CC, IL	Construction Energy Program
15. Scott Community College, IA	Solar Energetics Technology
16. Western Iowa Tech. CC, IA	Solar Systems Technology
17. Barton County Community Jr. College, KS	Solar Energy Technology

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1678

DEGREE PROGRAMS

F. Solar (continued)

- | | |
|---|---|
| 18. Essex Community College, MD | Solar Engineering Assistant |
| 19. Bristol Community College, MA | Energy Systems Technology |
| 20. Cape Cod Community College, MA | Energy Systems Technology |
| 21. Massasoit Community College, MA | Solar Energy Technology |
| 22. St. Clair County CC, MI | Energy Technology (with Jordan College) |
| **23. NW Mississippi Junior College, MS | Solar & Environmental Engineering |
| 24. Clark County Community College, NV | Solar Energy Technology |
| 25. Delaware County CC, PA | Solar Technology |
| 26. Central Texas College, TX | Solar Energy Systems Technology |
| 27. Navarro College, TX | Solar Energy Technology |
| 28. North Lake College, TX | Solar Energy Technology |
| 29. Texas State Tech. Inst., Waco, TX | Solar Energy Technology |
| 30. Northern Wyoming CC, WY | Solar Energy Technology |

G. Energy General

- | | |
|--|-------------------------------|
| 1. Cosumnes River College, CA | Geo-Science Technology |
| 2. Indian Valley College, CA | Energy Technology |
| 3. Bismarck Junior College, ND | Power Plant Technology |
| 4. Wisconsin Indianhead VTAE Dist., WI | Energy Engineering Technician |

H. Audit

- | | |
|-----------------------------------|--------------|
| 1. Los Angeles Valley College, CA | Energy Audit |
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DEGREE PROGRAMS

I. Conservation

- | | |
|---|---|
| 1. Sierra College, CA | Energy Management Technician |
| 2. Olney Central College, IL | Construction Energy Technology |
| 3. Iowa Valley CC, Marshalltown, IA | Energy Management Technician |
| 4. Marshalltown Community College, IA | Energy Management Technician |
| 5. Dundalk Community College, MD | Stationary Engineering Technology |
| 6. Charles S. Mott Community College, MI | Conservation Technology |
| 7. Lakewood Community College, MN | Energy Conservation Technology |
| 8. Redwing AVTI, MN | Energy Conservation & Use Technician |
| 9. Pitt Community College, NC | Energy Technology |
| 10. Bismarck Junior College, ND | Energy Resource Management |
| 11. Clark Technical College, OH | Energy Management Technology |
| 12. University of Cincinnati, OH | Energy Management |
| 13. Horry-Georgetown Tech. College, SC | Energy Conservation & Use Technician |
| 14. Greenville Technical College, SC | Energy Management Technology |
| 15. Volunteer State Community College, TN | Conservation & Environmental Technology |
| 16. Edmonds Community College, WA | Energy Management |
| 17. Tacoma Community College, WA | Energy Management Technology Program |

J. Alcohol

- | | |
|--------------------------------|-------------------------|
| 1. Colby Community College, KS | Alcohol Fuel Technology |
|--------------------------------|-------------------------|

CERTIFICATE PROGRAMS

A. Environmental

- | | |
|-----------------------------|--|
| 1. Phoenix College, AZ | Drinking Water/Wastewater Technology |
| 2. Butte College, CA | Drinking Water/Wastewater Technology |
| 3. Citrus College, CA | Drinking Water/Wastewater Technology |
| 4. Contra Costa College, CA | Drinking Water/Wastewater Technology |
| 5. Fresno City College, CA | Drinking Water/Wastewater Treatment Technology |

CERTIFICATE PROGRAMS

A. Environmental (continued)

6. Imperial Valley College, CA	Potable Water Technology
7. Palomar College, CA	Potable Water Technology
8. Palomar College, CA	Wastewater Treatment Technology
9. Reedley College, CA	Pesticides & Toxicology
10. Saddleback College, CA	Pesticides & Toxicology
11. Ventura College, CA	Drinking Water/Wastewater Treatment Technology
12. Edison Community College, FL	Drinking Water/Wastewater Treatment Technology
13. Florida Keys Community College, FL	Drinking Water/Wastewater Treatment Technology
14. Gulf Coast Community College, FL	Drinking Water/Wastewater Treatment Technology
15. Indian River Community College, FL	Drinking Water/Wastewater Treatment Technology
16. Miami-Dade Community College, FL	Wastewater Treatment Technology
17. Miami-Dade Community College, FL	Potable Water Technology
18. North Florida Junior College, FL	Wastewater Treatment Technology
19. Pasco-Hernando Community College, FL	Drinking Water/Wastewater Treatment Technology
20. Pensacola Junior College, FL	Drinking Water/Wastewater Treatment Technology
22. Pinellas Vocational Tech. Inst., FL	Drinking Water/Wastewater Treatment Technology
23. Polk Community College, FL	Drinking Water/Wastewater Treatment Technology
24. WA Holmes Area Voc. Tech. Center, FL	Drinking Water/Wastewater Treatment Technology
25. Carl Sandburg College, IL	Drinking Water/Wastewater Treatment Technology
26. Waubensee Community College, IL	Environmental Engineering Technology
27. Kirkwood Community College IA	Environmental Science/Health
28. Kirkwood Community College, IA	Drinking Water/Wastewater Treatment Technology
29. Delgado Community College, LA	Pesticides & Toxicology
30. Southern Maine Voc. Tech. Inst., ME	Wastewater Treatment Technology
31. Community College of Baltimore, MD	Environmental Science/Health
*32. Garrett Community College, MD	Environmental & Renewable Resources
33. Macomb County Community College, MI	Drinking Water/Wastewater Treatment Technology
34. CC of the Finger Lakes, NY	Environmental Studies
35. Tompkins-Cortland CC, NY	Drinking Water/Wastewater Treatment Technology
36. Western Piedmont CC, NC	Wastewater Treatment Technology

CERTIFICATE PROGRAMS

A. Environmental (continued)

37. Linn-Benton Community College, OR
38. Umpqua Community College, OR
39. Harrisburg Area Community College, PA
40. J. Sargeant Reynolds CC, VA
41. J. Sargeant Reynolds CC, VA
42. NV Community College, Woodbridge , VA
43. Wytheville Community College, VA
44. Parkersburg Community College, WV
45. WV Northern Community College, WV

Drinking Water/Wastewater Treatment Technology
 Environmental Science/Health
 Drinking Water/Wastewater Treatment Technology
 Potable Water Technology
 Drinking Water/Wastewater Treatment Technology
 Environmental Science/Health
 Drinking Water/Wastewater Treatment Technology
 Environmental Engineering Technology
 Environmental Science/Health

B. Nuclear

1. Chabot College, CA

Radiation Technology

C. Alternate

1. Imperial Valley College, CA
2. Monterey Peninsula College, CA
3. Santa Ana College, CA
- * 4. Garrett Community College, MD
5. Redwing AVTI, MN

Alternate Energy Technician Training
 Alternate Energy Technology
 Energy Technology
 Environmental & Renewable Resources
 Alternate Energy

D. Coal

1. Walker State Technical College, AL
2. Wabash Valley College, IL
3. Southwest Virginia CC, VA

Underground Coal Mining Industry Diploma
 Coal Mining Technology
 Mine Machine Maintenance

1686

1685

CERTIFICATE PROGRAMS

E. Petroleum

1. Coastline Community College, CA
2. Casper College, WY
3. Hocking Technical College, OH

Petroleum Technology
 Petroleum Technology
 Oil Well Servicing and Maintenance

F. Solar

1. Mountain States Tech. Institute, AZ
2. Maricopa Tech. Community College, AZ
3. Contra Costa College, CA
4. Merced College, CA
5. Monterey Peninsula College, CA
6. Saddleback College, CA
7. San Diego Evening College, CA
8. CC of Denver, Red Rocks, CO
9. Norwalk State Technical College, CT
10. Pensacola Junior College, FL
11. Scott Community College, IA
12. Bay De Noc Community College, MI
13. Red Wing AVTI, MN
14. Metropolitan Tech. CC, NB
15. NH Voc. Tech. College, Manchester, NH
16. Bergen Community College, NJ
17. Bergen Community College, NJ
18. Bergen Community College, NJ
19. Mohawk Valley Community College, NY
20. Southwestern Technical College, NC
21. Umpqua Community College, OR
22. Chattanooga State Tech. CC, TN

Solar Energy Technology
 Solar Technology (Industry Tech./
 Refrigeration department)
 Solar Energy Technology
 Solar Technician
 Solar Collector Fabrication
 Solar Energy Systems Installer
 ACHR & Solar Technology
 Solar Energy-Installation & Maintance
 Solar Technology
 Solar Technology Training
 Solar Installation & Maintenance
 Solar Energy Technology
 Solar Energy Technology
 Survey of Solar Energy
 Solar Energy
 Energy Technology Training
 Proficiency in Energy Technology
 Studies in Energy Technology
 Solar Energy Technology
 Solar Mechanics
 Solar Technology Training
 Solar Installation

CERTIFICATE PROGRAMS

F. Solar (continued)

23. Navarro College, TX
24. Texas State Tech. Inst., Sweetwater, TX
25. Edmonds Community College, WA

Solar Installation & Maintenance
 Solar Technology
 Solar Technician

G. Energy General

1. Delaware Tech. & CC, Terry, DE

Energy Education & Awareness

H. Audit

1. Aiken Technical Institute, NC
2. Edmonds Community College, WA

Energy Conservation Technology
 Residential/Commercial Auditor Training

I. Conservation

1. Coastline Community College, CA
2. Sierra College, CA
3. Daytona Beach Community College, FL
4. Dundalk Community College, MD
5. Redwing AVTI, MN

Energy Management
 Energy Management Technology
 Energy Conservation Applications
 Stationary Engineering Technology
 Energy Conservation Technology

J. Alcohol

1. Clinton Community College, IA
2. Colby Community College, KS

Alcohol Fuels Training
 Alcohol Fuels Technology

1690

1689

CERTIFICATE PROGRAMS

K. Wind

1. Redwing AVTI, MN

Wind Energy Systems

L. Biomass

1. Redwing AVTI, MN

Biomass Energy

M. Mining

1. Casper College, WY

Mining Technology

DEGREE/CERTIFICATE WITH OPTION

A. Nuclear

1. Southern Technical Institute, GA

Degree

Nuclear Safety option in Electrical Engineering Technology, AAS

B. Alternate

1. Sacramento Community College, CA

Degree

Alternate Energy Option in Mechanical/Electrical Technology, AAS program

2. State Tech. Inst. at Knoxville, TN

Degree

Alternate Energy Specialist in Mechanical Engineering Technology, AAS program

DEGREE/CERTIFICATE WITH OPTION

C. Solar

1. Carver State Technical College, AL	Degree	Certificate Plumbing & Pipefitting, solar option
2. Long Beach City College, CA	Deg/Cert	Solar Option in AAS & Certificate Refrigeration & Air Conditioning Programs
3. LA Trade-Tech. College, CA	Deg/Cert	Solar Option in AAS & Certificate Air Conditioning & Refrigeration Technology programs
4. Mt. San Antonio College, CA	Degree	Solar Study option in AAS ACHR
5. Orange Coast College, CA	Deg/Cert	Solar Specialization in Power Engineering degree & certificate program
6. San Diego City College, CA	Degree	Solar Specialization in ACHV AAS program
7. Otero Junior College, CO	Degree	Solar Heating option in AAS Architectural Technology
8. Gulf Coast CC, FL	Degree	Solar Energy/Solar Systems option in AAS ACHR
9. Miami-Dade CC, FL	Degree	Solar Specialization in AAS Air Conditioning Engineering Technology
10. Belleville Area College, IL	Degree	Solar Specialization in ACHR AAS program
11. Kansas Technical Institute, KS	Degree	Solar Option in Mechanical Engineering Technology
12. Hagerstown Junior College, MD	Degree	Energy Option in Mechanical Engineering Technology
13. Springfield Tech. CC, MA	Degree	Solar Energy Option in Heat/Power & Air Conditioning AAS
14. Lansing Community College, MI	Degree	Solar Option in Engineering Technician Program
15. St. Paul's College, MN	Cert.	Solar Study Option in Construction Technology
16. St. Paul's College, MN	Cert.	Solar Study Option in Industrial Controls

DEGREE/CERTIFICATE WITH OPTION

C. Solar (continued)

17. St. Paul's College, MN	Cert.	Solar Study Option in Steamfitting/Pipefitting certificate program
18. SUNY AG. & Tech. C., Delhi, NY	Degree	Solar Study in Construction, Architectural, and Civil Technology, AAS program
19. Ranger Junior College, TX	Degree	Solar Study in AAS ACR program
20. TX St. Tech. Inst., Sweetwater, TX	Degree	ACVR AAS degree program with Solar Option
21. Tyler Junior College, TX	Degree	Solar Study in AAS ACR program
22. Dixie College, UT	Degree	Solar Technology option in Business & Trades department
23. NV CC, Annandale, VA	Degree	Solar Option in ACR AAS program
24. Mohawk Valley CC, NY	Degree	Solar Technology option in ACVR degree program
25. North Seattle CC, WA	Degree	Solar Study in HACR AAS program

D. General

1. Kenai Peninsula College, AK	Degree	Energy Options in Industrial Electronics & Industrial Process Instrumentation, AAS program
2. Portland Community College, OR	Degree	Energy Option in Mechanical Engineering Technology

E. Conservation

1. Linn-Benton CC, OR	Degree	Energy Conservation and Solar Energy option in AAS Civil/Mechanical Engineering Technology
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APPLIED RESEARCH/DEMONSTRATION

A. Alternatives

1. Modesto Junior College, CA..... Retrofitted greenhouse complex with solar hot water heating system, constructed another greenhouse on existing daycare center, designed & constructed solar water heating system for a dairy, operating a wind generator, collaborated on a methane generating project on dairy
2. North Idaho College, ID..... Investigating heat use from decomposing pits to generate energy & use of surplus steam from large local lumber mill
3. N. Maine Voc. Tech. Inst., ME..... Alternate Energy Laboratory conducts research, teaching, and public dissemination in alternate energy, with focus on food production, energy development, and building heating (see "Information Centers")
4. S. Maine Voc. Tech. Inst., ME..... Energy Testing Laboratory established as national testing center for heating appliance safety, and offers seminars & workshops
5. St. Clair County CC, MI..... Energy Laboratory with demonstrations in hot air, solar hot water, heat storage, windmills, gasification, & wood heating stoves
6. NW Mississippi Jr. College, MS.... Implementing comprehensive energy system for college using only renewable sources
7. Wilkes Community College, NC..... Working with local farmer on system to produce methane from chicken waste
8. ND State School of Science, ND.... Investigating various farm fuels for gas & diesel engines
9. NE OK A&M College, OK..... Constructing experimental distillation system for fuel for college vehicles; DDG's to feed animals
10. Linn-Benton CC, OR..... Demonstration in solar building & 3KW windmill with assortment of funding
11. Southwest Virginia CC, VA..... Conducting applied research in wind powered generators

APPLIED RESEARCH/DEMONSTRATION

A. Alternatives (continued)

- 12. Spokane Falls CC, WA..... Building earth-sheltered, efficient structure to be used as demonstration, resource, & learning center
- 13. Laramie County CC, WY..... Built model energy efficient home with active & passive solar system & a 4,000 watt wind generator; students monitor performance

B. Solar

- 1. Central AZ College Dist., AZ..... Construction & Evaluation of solar collectors for swimming pool heating
- 2. Maricopa CCC District, AZ..... Refurbishing historic home with solar water heating system
- 3. City College of SF, CA..... Design, equip, install solar hot water system in classroom building
- 4. Feather River College, CA..... Solar design of 43-unit housing development for senior citizens & application of solar hot water pre-heat system in four senior citizens nutrition centers
- 5. Colorado Mtn. College, West, CO... Constructed 1 passive & 2 active solar buildings on campus
- 6. Trinidad State Jr. College, CO.... Through Building Trades department constructed passive & active solar homes demonstrations
- 7. NH Voc. Tech. C, Manchester, NH... Solar home construction
- 8. Mayland Technical College, NC..... Constructing vocational building with solar assistance as demonstration site - Vocational Solaronics Laboratory
- 9. Columbus Technical Inst., OH..... Administer USDOE two-year project to provide one building with 70% of its heating and 30% of cooling through solar applications.
- 10. Paris Junior College, TX..... Installed solar heating systems & uses as part of Solar Energy Technology program, and studying possibility of alcohol & active solar systems as alternate energy sources for area
- 11. American Samoa CC, AS..... Planning curriculum development aimed at careers in energy technology with initial focus in Solar Construction, then generalist Energy Technology.

APPLIED RESEARCH/DEMONSTRATION

C. Conservation

1. Tompkins-Cortland CC, NY..... Window Treatment - R&D
2. Connors State College, OK..... Administers demonstration project to improve mobile home energy efficiency using waste materials
3. Navarro College, TX..... Developing 11-module curriculum on conservation

D. Alcohol

1. Palm Beach Junior College, FL..... Program to produce alcohol from cattails
2. S. Eastern Illinois College, IL.... Construction of alcohol fuel plant with evaluation and attendant end-product use applications
3. Iowa Central CC, IA..... Research costs/returns of twelve small-scale farm stills
4. Dodge City C. Jr. College, KS..... Developing alcohol still process using exhaust from diesel engine as heat source for alcohol production
5. Sumter Area Tech. College, SC..... Alcohol fuel demonstration
6. District One Tech. Inst., WI..... Conducting research/demonstration in alcohol fuels
7. SW Wisconsin Tech. Inst., WI..... Demonstration center for alcohol fuels production technician program
8. NW Community College, WY..... Looking into production of alcohol from grain & sugar beets

E. Wind

1. DE Tech. & C.C., Southern, DE..... Wind turbine design & installation to produce hot water & generate supplemental electricity

APPLIED RESEARCH/DEMONSTRATION

F. Geothermal

1. Lassen College, CA..... Conducting research/demonstration in geothermal energy
2. College of Southern Idaho, ID..... Geothermal well project, along with wind generator and alcohol plant

PLANNED PROGRAMS/INVESTIGATIONS

1. Enterprise State Jr. College, AL..... Short courses & degree program in conservation, solar, and nuclear
2. Muscle Shoals State Tech. College, AL..... Solar Unit in RAC program
3. Kenai Peninsula CC, AR..... AAS Energy Resource Technology
4. North Arkansas CC, AR..... Developing Alternative Energy Technology, AAS
5. North Arkansas CC, AS..... Developing Alternative Energy Technology, AAS
6. Allan Hancock College, CA..... Developing Alternate Energy program
7. College of the Siskiyous, CA..... AAS Appropriate Technology
8. Arapahoe Community College, CO..... Energy Conservation Technology, AAS
9. Colorado Mtn. College, West Campus, CO.... College staffs and administers conservation training in 8-state area with mobile training lab; also plans substantial program development for coal and shale oil industry expansion
10. Lamar Community College, CO..... AAS in Alcohol Fuel Technology
11. Trinidad State Junior College, CO..... Energy Laboratory Technology for coal & energy-related analysis work
12. Florida Jr. College at Jacksonville, FL... Developing alcohol fuels curriculum
13. Black Hawk College, IL..... Alternate Energy survey course
14. Lincoln Land Community College, IL..... Considering AAS in Alternate Renewable Energy/Fuels Technology

PLANNED PROGRAMS/INVESTIGATIONS (continued)

15. Seward County Community Jr. College, KS... Curriculum development for solar AAS degree, conservation & appropriate technology for public, short-term training in solar through Continuing Education
16. Anne Arundel Community College, MD..... Applied Energy Technology as option in Engineering Technology AAS degree program
17. Community College of Baltimore, MD..... Energy Research & Development Technology AAS program for '82
18. Essex Community College, MD..... Environmental Technology
19. Montgomery College, Germantown, MD..... Power Technology option in Electro-Mechanical Technology AAS program and plans solar-wind system application for 2 houses now used as day-care center
20. Northern Essex Community College, MA..... Solar Technology certificate
21. Delta College, MI..... Two courses in alcohol fuel production
22. Northwestern Michigan CC, MI..... Solar Energy Technology AAS
23. Wood Junior College, MS..... Investigating use of methane generator fueled with wastes from horsemanship program & sawdust
24. State Fair CC, MO..... AAS AG Energy
25. Flathead Valley CC, MT..... Investigating alcohol production from barley & wheat
26. Miles Community College, MT..... Planning AAS program Power Plant Technology, focus on coal-fired generation plants
27. Miles Community College, MT..... Energy Resource Technology AAS planned coal industry focus
28. Nebraska Western College, NB..... Develop Ethanol Fuel Production course
29. Nebraska Western College, NB..... Planning Alcohol Fuels Technology certificate program, & certificate in Solar Technology
30. Southeast CC, Milford, NB..... Develop alcohol plant to produce 85 gallons ethanol/34 bushels of grain, with solar providing some of energy needs; product to be tested in gasoline & diesel engines

PLANNED PROGRAMS/INVESTIGATIONS (continued)

- 31. New Hampshire Voc. Tech. College, NH..... AAS/certificate planned in Solar Technican
Training and AAS/certificate planned in Energy
Conservation & Use Technology
- 32. Bergen Community College, NJ..... AAS in Energy Technology planned
- 33. Eastern New Mexico University, NM..... Alcohol Fuel Production course
- 34. New Mexico Junior College, NM..... Planning an Energy Institute
- 35. Adirondack Community College, NY..... Planning to construct a solar energy building
- 36. Bronx Community College, NY..... Planning a community oriented energy-efficiency
survey service to be provided by college
students
- 37. Erie Community College, NY..... Planning a course in Energy Development
- 38. Herkimer County CC, NY..... Investigating possibility of Energy Technology
Program, AAS
- 39. Hudson Valley CC, NY..... Exploring idea of 4-day week & converting A.C.
Technology to Energy Systems Technology
- 40. Piedmont Technical College, NC..... Developing Boiler Mechanics Program, AAS,
electrical power generation
- 41. Randolph Technical College, NC..... Planning & equipping facilities for future
alternate energy program
- 42. OK State Univ., The Tech. Inst., OK..... Planning Energy Management Technology program,
AAS
- 43. Midlands Technical College, SC
Investigating re-opening college's unit
operations lab (with distillation column as
alcohol fuels production training area
- 44. Snow College, UT
Considering adding Coal Mining Technology
- 45. Everett Community College, WA
Planning AAS Ethanol Technology Training
program and construction of 300,000 gallon/year
plant
- 46. Green River Community College, WA
Planning Solar Energy Technology, AAS
- 47. Eastern Wyoming College, WY
Planning solar & wind energy programs
- 48. Guam Community College, Guam
Planning Alternatives program

CONSORTIA

1. Chipola Junior College, FL
Working with 5 county school districts to develop conservation/ management plans for all county schools.
2. Miami-Dade Community College, FL
Cooperating with the Center for Occupational Research and Development (CORD) in field test of Energy Conservation and Use Technician curriculum materials, materials produced for two-year colleges with funding assistance from the U.S. Department of Education. Other field test sites are: Horry-Georgetown Technical College, SC; Marshalltown Community College, IA; Red Wing Area Vocational Technical Institute, MN; Tacoma Community College, WA; Utah Technical College at Provo, UT; Camden County College, NJ; Greenville Technical College, SC; Daytona Beach Community College, FL; Albuquerque Technical Vocational Institute, NM; Oklahoma State Technical Institute, Okmolgee, OK; Texas State Technical Institute, Waco, TX; and North Central Technical Institute, WI.
3. Ashland Community College, KY
Participant in Energy Conservation Consortium of Colleges - (five) FIVCO area (Boyd, Greenup, Lawrence, Elliot and Carter counties); each college in the consortium is expected to present two topics: (1) Energy Audits for Existing Residential Structures and (2) Energy Conservation in New Construction. The College presented four seminars, which attracted homemakers, women's clubs, home builders, architects, utility companies, and homeowners. Seminar announcements were mailed with local utility bills. The fourth seminar took the form of an Energy Fair. Offered in the fall, 1979.
4. Hagerstown Junior College, MD
With Allegheny Community College & Frostburg State College to develop solar energy institutional materials.
5. Charles Stewart Mott Community College, MI
Technology transfer 10-college network with initial focus on conservation; each college responsible for establishing an Energy Conservation Center to provide technical assistance & training; with Macomb, Schoolcraft, Henry Ford, Highland Park, Jackson, Monroe, St. Clair, Washtenaw, and Wayne community colleges.

CONSORTIA (continued)

6. Northeast Mississippi Junior College, MS
Regional center for environmental & energy education as part of North Mississippi Environmental Education Consortium; with Tennessee Valley Authority; more than 12 other higher education institutions to be involved.
7. Corning Community College with Suffolk Community College, NY
Working together to provide technical assistance to area industry -- audits & conservation strategies.
8. Monroe Community College, NY
With education agencies, libraries, neighborhood associations developing and applying energy awareness programs.
9. Caldwell Community & Technical Institute, NC
With Mayland Technical College and Wilkes Community College, in Regional Energy Institute to promote development, conservation & management of alternate energy in area.
10. Pitt Community College, NC
Participant in State Energy Institute to provide construction trades students hands-on experience in building passive solar systems in residences.
11. Clark Technical College, OH
In 1978 joined with eleven 2-year colleges to produce consumer energy learning modules; and was instrumental in organizing Ohio Technical Transfer Organization (OTTO), for auditor training.
12. Edmonds Community College, WA
With four other colleges, charged with research, development, and implementation of Energy Management Training Program; participating colleges are Lower Columbia, Spokane Falls, Tacoma, and Yakima.
13. Laramie County Community College, WA
With six other colleges & University of WY, planning & designing energy education programs for citizens and students in secondary and postsecondary institutions; participating colleges are Casper, Central WY, Eastern WY, Northern WY, Northwest, and Western.

ALCOHOL FUEL GRANTEES - USDOE - (1979-1980)

1. Mississippi County Community College, AR
2. College of the Siskiyous, CA
3. Modesto Junior College, CA
4. Lamar Community College, CO
5. Delaware Technical & Community College, Terry, DE
6. Brevard Community College, FL
7. Kankakee Community College, IL
8. Lake Land Community College, IL
9. Lincoln Land Community College, IL
10. Vincennes University, IN
11. Des Moines Area Community College, Ankeny, IA
12. Eastern Iowa Community College, IA
13. Iowa Central Community College, IA
14. Paducah Community College, KY
15. Cecil Community College, MD
16. Springfield Technical Community College, MA
17. Northwest Mississippi Junior College, MS
18. Southeast Community College, Milford Campus, NB
19. Navajo Community College, NM
20. Onondaga Community College, NY
21. Pitt Community College, NC
22. North Dakota State School of Science, ND
23. Lehigh County Community College, PA
24. Oglala Sioux Community College, SD
25. Navarro College, TX
26. College of Virgin Islands, St. Thomas, VI

FACULTY DEVELOPMENT GRANTEES (1980)

1. Lawson State Community College, AL	Conservation
2. Modesto Junior College, CA	Solar
3. Santa Rosa Junior College, CA	Ocean Systems
4. Sonoma County Junior College, CA	General (puppetry)
5. Colorado Mountain College, West, CO	General
6. Houstonic Community College, CT	Awareness
7. Brevard Community College, FL	General
8. Valencia Community College, FL	General
9. Lake Land Community College, IL	Alternatives
10. Clinton Community College, IA	General
11. Johnson County Community Junior College, KS	General
12. Alleghany Community College, MD	Solar
13. Grand Rapids Junior College, MI	General
14. St. Louis Community College, Forest Park, MO	General
15. Middlesex County College, NJ	General
16. Navajo Community College, NM	General (2 programs: alone & with Univ. of San Diego, CA)
17. Martin Community College, NC	Conservation/Alternate
18. North Lake College, TX	General
19. Dixie College, UT	General
20. Central Virginia Community College, VA	Conservation
21. Paul D. Camp Community College, VA	Alternate
22. Laramie County Community College, WY	Solar
23. Phoenix College, AZ	Alternate
24. InterAmerican University of Puerto Rico, PR	General

FACULTY DEVELOPMENT GRANTEES (1981)

25. Phoenix College, AZ	Alternate
26. Navajo Community College, AZ	Alternate
27. Santa Rosa, CA	Ocean Systems
28. Grand Rapids Junior College, ID	General
29. Clinton Community College, IA	Alternate
30. Valencia Community College, FL	General
31. Westchester Community College, NY	General

COLLEGE ENERGY INFORMATION CENTERS

1. North Arkansas C.C., AR	Appro. Tech. Info. Center	Appropriate Tech.
2. Imperial Valley C., CA	Geothermal Energy Center	Geothermal
3. Modesto Jr. College, CA	Sunrise Energy Center	Alternatives
4. Monterey Peninsula C. Dist., CA	Energy Information Center	Conservation
5. Yosemite C.C. Dist., CA	Com. Energy Info. & Educ. Center	Solar
6. Colorado Mtn. C. West, CO	Center for Appro. Tech & Energy Self-Sufficiency	Appropriate Tech.
7. Miami Dade C.C., New World Center Campus, FL	Alternative Energy Center	Alternatives
8. Lake Land C.C., IL	Energy Resource Library	General
9. Thornton C.C., IL	Energy Library	General
10. Bristol C.C., MA	Energy Referral Office	General
11. N. Maine Voc-Tech Inst., ME	Alternative Energy Laboratory	Alternatives
12. Jackson C.C., MI	Knight Energy Tech. Center	Alternatives
13. Dutchess C.C., NY	Energy Clearinghouse	General
14. Onondaga C.C., NY	Passive Solar Heated Energy Education Center	General
15. Greenville Tech. C., NC	Telephone Info Center "POLLY"	General
16. Erie Community College, South, NY		General
17. Westchester CC, South, NY		Appropriate Tech.
18. NE OK A&M College, OK	Learning Resources Center	General
19. Linn-Benton C.C., OR	Energy Information Center	Alternatives
20. Alvin C.C., TX	Energy Information Center	Alternatives
21. Amarillo College, TX	Energy Information Center	General
22. Spokane Falls C.C., WA	Demonstration Info Center	Alternatives
23. Bluefield State College, WV		Appropriate Tech.

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